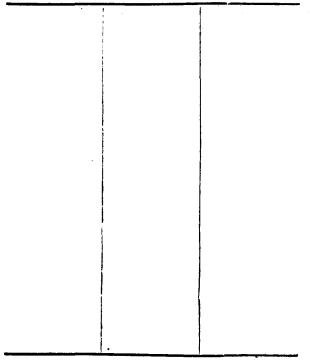


This book should be returned on or before the date last mentioned below.

Failurs to comply will involve cancellation of the Borrower's Card and forfeiture of deposit.



A. B. P. P.],



STUDIES IN PUBLIC ADMINISTRATION Volume I

GOVERNMENT-OPERATED ENTERPRISES IN THE PANAMA CANAL ZONE

THE UNIVERSITY OF CHICAGO PRESS CHICAGO, ILLINOIS

THE BAKER & TAYLOR COMPANY NEW YORK

THE CAMBRIDGE UNIVERSITY PRESS LONDON

THE MARUZEN-KABUSHIKI-KAISHA TOKYO, OSAKA, KYOTO, FUKUOKA, SENDAI

THE COMMERCIAL PRESS, LIMITED SHANGHAI

GOVERNMENT-OPERATED ENTERPRISES IN THE PANAMA CANAL ZONE

MARSHALL E. DIMOCK

Associate Professor of Public Administration The University of Chicago

WITH AN INTRODUCTION BY LOUIS BROWNLOW Director, Public Administration Clearing House



THE UNIVERSITY OF CHICAGO PRESS CHICAGO · ILLINOIS

COPYRIGHT 1934 BY THE UNIVERSITY OF CHICAGO ALL RIGHTS RESERVED. PUBLISHED OCTOBER 1934

COMPOSED AND PRINTED BY THE UNIVERSITY OF CHICAGO PRESS CHICAGO, ILLINOIS, U.S.A.

X74.770K73.N3

G4

85770

TO MY WIFE

HE American public has been informed from time to time of the construction, sanitation, and defense problems which have accompanied the construction and maintenance of the Panama Canal, but very little is popularly known about the government-owned corporation which has been active on the Isthmus for thirty years, about the ramified business services which the government operates, and about community life in the Canal Zone. To present this side of the picture is the purpose of the present study.

The writer's administrative survey, which led to the writing of this monograph, was conducted at the invitation of the Secretary of War. In his letter of October 28, 1933, addressed to Mr. Louis Brownlow, Director of Public Administration Clearing House, the Secretary of War said in part:

I should be most happy to have your organization undertake this study, so as to give the War Department the benefit of a fresh, outside viewpoint. I have no reason to think that the present administration of the Panama Canal is not highly efficient and I am frank to say that I shall be surprised if you find much to criticize. However, all successful corporations insist upon an annual independent audit and it is in this spirit that I invite you to make the foregoing study, if you care to do so.

Incidentally, this study might be of especial interest in another direction. I believe that the Panama Railroad Company is one of the oldest examples of conducting a Government function by means of a corporation. This method of carrying on public business is becoming very common. Indeed, hardly a day passes that some new Government corporation is not organized in Washington to conduct an activity in connection with the Administration's recovery program. In view of the fact that the Panama Railroad Company is about the oldest corporation of this type, it has been suggested that a comprehensive study of its organization and methods of operation would not only be timely, but might be helpful to some of the newer Government-owned corporations which are just being launched.

Mr. Brownlow requested the University of Chicago to sponsor the research, and this was done by drawing upon the Public

Administration Fund and by releasing the writer from university duties for one academic quarter.

Information concerning administrative organization, historical development, the shipping line, and purchasing operations could be, and was, obtained in Washington and New York. However, most of the data were acquired as the result of a three months' trip to the Canal Zone.

The only published materials relating to the present investigation were those of general historical and social interest. The annual reports of the Panama Railroad Company, the Governor's annual reports, the minutes of the Board of Directors of the Panama Railroad Company, the very complete files of the Canal Zone administration on the Isthmus, and special studies which have been conducted by staff members all proved very useful. The author wishes to pay special acknowledgment to recent studies which have been conducted by a staff of engineers under the direction of the Engineer of Maintenance. These surveys relate to railway management, commissary operations, depreciation policies, and hotel administration; and although material was extracted from them, specific acknowledgment could not be given in all cases.

Most of the information contained in this study was acquired from interviews and personal observations. The author did not confine his inquiries to officials and employees, but attempted to secure criticisms and suggestions from as wide a variety of sources as possible. This was done with the knowledge and approval of the Canal Zone officials, who were afterward very helpful in verifying and checking information received.

This study is one in public administration, as broadly and humanly interpreted. It draws upon business administration, economics, history, international relations, and sociology again illustrating the close relationship between the social sciences in attacking certain complex problems.

The present research also throws light on the state as entrepreneur. In the Canal Zone the United States government

owns and operates a greater number and variety of economic services than it does in any other place. That these enterprises are not insignificant is attested by the fact that the government has invested almost six hundred million dollars in the Isthmian development. What success has the government had as owner and operator of steamships, railway trains, hotels, department stores, manufacturing plants, recreation centers, and other activities which are usually privately controlled? It is hoped that this study may add to the knowledge required in dealing with larger social problems, particularly the choice between regulation and direct operation as the future policy for national development.

The experience of the government-owned Panama Railroad Company may be of some practical value in guiding the government's policy relative to existing or prospective governmentowned corporations. If, for example, the country's railroad system were placed under a public corporation, as official quarters have suggested, all of the available knowledge concerning government-owned corporations would be greatly needed. It was largely with these considerations in mind that chapter ix, entitled "Principles Underlying Government-owned Corporations," was written.

Finally, there is developing what may be called public commercial administration—the management of governmentoperated economic services. It is hoped that this study may make some contribution to that body of knowledge and experience.

Not all of the business services in the Canal Zone have been analyzed in detail. The operation of the canal itself was not considered; nor were so-called business units, such as the Mechanical Division and the Electrical Division—as important as ship construction and repair, electrical power, and telephone service unquestionably are.

This study is chiefly concerned with the principal enterprises owned by the Panama Railroad Company—the railroad line, the steamship service, and the commercial and manufac-

turing units. All of the services have been dealt with in a sense, however, because the administrative set-up and functioning of the entire Canal-Railroad establishment has been criticized from the standpoints of public administration and business management. The overhead organization and control is of greater concern, for the present purpose, than the individual enterprises. It will be recognized, though, that the records of the individual enterprises are the gauge of the success of the organization as a whole.

For assistance, in conducting the study and preparing the manuscript the author is primarily indebted to Mr. Lewis B. Sims, Research Assistant in the Department of Political Science, the University of Chicago. Mr. Sims made the trip to Panama and afterward labored over the manuscript. He had a hand in every part of the research except the actual writing and the interviewing.

The officials in Washington, in New York, and in the Canal Zone could not have been more accommodating than they were in supplying information and providing entrees and assistance. The author is particularly grateful to Governor Julian L. Schley; Lieutenant Colonel Clarence S. Ridley, Engineer of Maintenance; and Major William R. Gruber, Executive Assistant, War Department, all of whom read the manuscript and made helpful criticisms and comments. Thanks are also due to Mr. T. H. Rossbottom, Vice-President of the Panama Railroad Company, and to his assistant, Mr. W. R. Pfizer, whose courtesy will long be remembered. Acknowledgment is due to many persons, but the author is particularly anxious to mention the names of the following: A. L. Flint, Chief of Office, The Panama Canal, Washington, D.C.; R. B. Walker, General Manager, Panama Railroad Company; Elwyn Greene, Auditor, The Panama Canal: Major William Covell, Assistant Engineer of Maintenance; W. J. Sheridan, Commissary Purchasing Agent, Panama Railroad Company; A. W. Goulet, General Manager, Commissary Division; H. A. McConaughey, President, Panama Metal Trades Council; John H. Smith,

Chief Clerk; Seymour Paul, Chief Statistician; Roy R. Watson, Chief Quartermaster; E. A. Erbe, Assistant Statistician; J. H. K. Humphrey, Assistant Chief Quartermaster; C. W. Lee, Assistant to General Manager and Commercial Agent, Panama Railroad Company; E. D. Mason, Chief Clerk, Panama Railroad Company; L. A. Poltrino, Secretary to the Governor; W. H. Kromer, Assistant Auditor; Nelson Rounsevell, Editor, the *Panama-American*; and Mrs. Thomas Reynolds, President, Canal Zone Women's League.

For assistance in preparing the manuscript the author is also indebted to Mr. Elton D. Woolpert, Research Assistant, Department of Political Science, and to Miss Jean Schneider, Secretary to the Chairman of the Social Science Research Committee, the University of Chicago. The general subject matter of this study was covered in the form of six public lectures which were given under the auspices of the University of Chicago between April 24 and May 29, 1934.

MARSHALL E. DIMOCK

CHICAGO, ILLINOIS May, 1934

INTRODUCTION

HAT governments do operate enterprises that are in essential respects of the same character as those operated by private persons is a fact that sometimes attracts less public attention than it deserves. So much is said and written about enterprises that should be taken over by government, and so much about why government should not invade the fields held sacred for private operation, that it is worth while, once and again, to inquire into some of the things that are being done in this general field.

If one does so inquire, one probably will be impressed by the circumstance that both governments and private persons use certain tools and certain methods to advance the fortunes of these business enterprises, and that the same tools and the same methods are often employed, whether the ownership and direction is governmental or private.

One such tool is that of the corporation. Private business men, with, of course, the aid of governments which alone may create corporations, have used it most widely and have developed, with its help, modern business. Governments are coming to use it also.

In the Panama Canal our own United States government uses the corporation through the Panama Railroad Company the stock of which it owns—for some purposes while for others the direct operation through governmental agencies is employed.

In this book Dr. Dimock has analyzed the operations carried on under both plans, has weighed their advantages and disadvantages, and has not hesitated to pronounce judgments and to make recommendations as to what should be done further to improve an already excellent administration of the business enterprises carried on by this great governmentowned and government-operated public utility. Great, and due, meed of praise has been freely given by all the world to the feats of engineering and sanitary science which cut the Isthmus and opened a mid-continental waterway from the Atlantic to the Pacific. Even the political and diplomatic devices which were used to get the chance to build the canal have been defended, or, if not defended, condoned, in the light of the results obtained and the money settlements made. The financial success of the canal likewise has justified most of its promoters.

Just now, when governments are expanding their activities in business enterprises, sometimes as partners, sometimes as friendly bankers, sometimes as owners and operators, it is useful to review what the United States government has done in Panama. It means not only to review what it has done with the canal itself, but also, and quite literally, with ships and shoes and sealing wax. It operates a railroad and a shipping line; hotels and a cemetery; department stores and butcher shops; schools, libraries, and playgrounds; laundries and ice plants; dairies and truck gardens.

In many of these things the corporate device has materially advantaged the success that has been obtained, so Dr. Dimock finds, and he recommends that this useful implement be employed for the whole vast congeries of enterprises.

Not only will the student of government-owned corporations be interested in what is here recorded and analyzed in the operation of the Panama Railroad Company, but he will also find food for thought and the basis for further researches into the whole general problem of the corporate device in governmental activities.

The statesman, too, will find here guidance with respect to matters of policy, especially in a time when the United States government and many state and local governments are turning to the government-owned corporation as a means for control and administration of public commercial undertakings.

LOUIS BROWNLOW

CHICAGO, ILLINOIS June, 1934

TABLE OF CONTENTS

					PAGE
LIST OF ILLUSTRATIONS					xxi
CHAPTER					
I. BACKGROUND OF ISTHMIAN ADMINISTRATION					1-21
Economic Value of the Panama Canal .					r
The Canal and National Defense					4
Community Life in the Canal Zone .					6
Relations with Panama					11
Government of the Canal Zone					14
Administrative Problems .					19
II. Development of Business Functions					22-31
Scope of Economic Activities					22
Early Importance of the Railroad					25
Government Ownership and Operation					27
Ancillary Services of the Railroad					20
Growth of Canal Functions					30
III. Relationships and Control					32-54
Relation to Congress					32
Financial Control	•	•	•	-	34
Railroad Board of Directors			•		37
Corporation as an Adjunct	•			•	39
Secretary of War's Responsibilities				•	42
Washington Office of The Panama Canal			·	·	43
Functions of the Governor		·		•	45
Future of Governor's Office	·	•		•	48
Overhead Control of Administration					51
IV. THE PANAMA RAILROAD					55-77
Economics of Rail Transport on the Isthm			·	•	
		·		·	55
	·	·	•	·	59
Railway Management	÷	•	•	·	65
	·	·		·	69
Harbor-Terminal Operations	·	•	•	·	71
The Coaling Plants	٠		·	·	74
Minor Services .	·	·	·	·	75
Summary	-		-	•	76

TABLE OF CONTENTS

CHAPTER					PAGE
V. THE SHIPPING LINE					78-97
Scope of Steamship Operations					79
Organization and Management					81
Financial Results and Rate Policies					84
Proposed Method of Eradicating Deficits					87
Attacks upon Government-owned Line					89
Restriction of Competitive Service					92
Reasons for Continuing Panama Line	•				95
VI. BUSINESS SERVICES OF THE CORPORATION					98-130
Control of Commercial Services by Supply I)eţ	art	me	nt	100
Canal Zone Commissaries					103
Commissary Finance			-		107
Criticisms of Commissary Management					110
Personnel Problems of Commissary Manag					115
Purchasing Operations.					118
Production Units	•				122
Hotel Enterprises					126
Conclusions		•			128
VII. FINANCIAL ADMINISTRATION					131-46
Existing Organization and Control					132
Reorganization of Financial Organization					140
Policies and Practices	•	•	·	•	155
VIII. Personnel Management					156-90
Control over Personnel Matters					158
Scope of Civil Service Regulations					162
	•				164
Efficiency Rating and Promotion Policy					168
					172
	•	•			178
					179
Alien Employees and Repatriation		•		•	183
Conclusions	•	·	·	•	189
IX. PRINCIPLES UNDERLYING GOVERNMENT-OWN RATIONS					101-211
Problems of Incorporation					102
Freedom from Governmental Interference	•	•	·	·	192
Functions of Board of Directors		•	•	·	194 196
Administrative Relationship to Governmen				·	190
Powers of General Manager	•	•	·	•	200
TAUGIS OF OCHOLOG MANAGOL	•	•	•	•	

xviii

TABLE OF CONTENTS

xix

CRAPTER			PAGE
Civil Service and Industrial Service			201
Financial Considerations			203
Accountability and Public Control .			207
Summary			210
X. CONCLUSIONS AND RECOMMENDATIONS			212–38
General Appraisal			212
Proposed Panama Canal Corporation			217
Relations with Panama			222
Administrative Reorganization			225
Summary			237
INDEX			239

LIST OF ILLUSTRATIONS

CHAR	T	PAGE
I.	FUNCTIONAL ORGANIZATION CHART, THE PANAMA CANAL AND THE PANAMA RAILROAD COMPANY	.6
	THE FANAMA NAILEOAD COMPANY	40
II.	OVERHEAD CONTROL AND INTERRELATIONS, THE PANAMA	
	CANAL AND PANAMA RAILROAD COMPANY	53
III.	Accounting Department on the Isthmus	137
IV.	EXECUTIVE DEPARTMENT, THE PANAMA CANAL	160
V.	PRESENT ORGANIZATION OF THE PANAMA CANAL	227
VI.	PROPOSED ORGANIZATION OF PANAMA CANAL CORPORATION .	229

xxi

CHAPTER I

BACKGROUND OF ISTHMIAN ADMINISTRATION

O CONSPICUOUS were the medical and engineering feats which attended the construction of the Panama Canal that, by comparison, few persons are aware of the contemporary significance of this workaday enterprise and its adjuncts in world-trade, international transportation, Caribbean politics, social experimentation, public administration, and public utility organization and control. The Panama Canal, the railroad, the steamship line, the commissaries, the hotels, the harbor-terminal operations, the coaling plants, the real estate business, the manufacturing plants, the telegraph and telephone systems, and certain minor activities which the United States government operates on the Ithmus-these services comprise a great international public utility of which Americans should have knowledge and in which they should take pride. Although the purpose of the present study is to survey the management and control of the above-mentioned public service enterprises, attention should be given to the conditioning factors of importance-such as trade routes and social conditions--which underlie administrative operations on the Isthmus. Special studies require general settings.

ECONOMIC VALUE OF THE PANAMA CANAL

The completion of a water route from the Atlantic to the Pacific in 1914 brought to fruition the dream of commercial nations throughout a span of five centuries. The completion of the task, begun first in 1881, was made possible by the presence of a railway spanning the Isthmus—a line which was opened by American capitalists in 1855. This constituted the initial link in the services of the Panama Railroad Company, which was incorporated under the laws of New York State in 1849 and was taken over by the United States as a governmentowned corporation in 1904. During the long period between 1855 and 1914 the railway built up a record in transportation and in finance which, for glamour and varied fortune, is probably not equaled in the life of any other carrier. The Panama Railroad Company now owns most of the ancillary commercial services in the Canal Zone and has continued to make an excellent financial showing since canal operation began in 1914. With the completion of the canal, however, the railway became, from the standpoint of transportation, merely an adjunct to the waterway.

The economic value of the Panama Canal depends largely upon its influence over ocean steamship routes. Its value in relation to older established routes has grown considerably in the last generation. Although the expenditure of nearly \$400,-000,000 in the construction of the Panama Canal was large in comparison with the relatively small cost and larger traffic of the Suez Canal, there is no longer any question about its financial success or its economic significance. At the end of the first year of operation the Panama Canal had handled net tonnage amounting to 4,888,454 tons, whereas 15,266,155 tons passed through the Suez during the same twelve months; by 1925, however, the amount of business done by the two interoceanic canals was almost equal. All of the principal ocean highways are increasingly affected by the establishment of a main trunk-line route to the west coast of the Americas and to the Pacific.

Traffic is routed via Panama chiefly because of the savings in distance and time which the canal makes possible. The distance from New York to San Francisco is 7,873 nautical miles shorter via Panama than by way of the Straits of Magellan; and the saving in distance between New York and Valparaiso, Chile, is 3,747 miles; Iquique, the great Chilean nitrate port, 5,139 miles; and Guayaquil, Ecuador, 7,405 miles. The distance from New York to Yokohama via Panama is 3,768 miles shorter than via the Suez Canal, and the saving on voyages to Shanghai is 1,876 miles; to Sydney, 3,932 miles; and to Wellington, 2,493.^r The canal is primarily of benefit to American commerce because the saving in distance afforded by the Panama Canal is greater on shipments to and from American ports than on those which clear or enter at the ports of Europe.

In a sense the Panama route is but an extension of the Caribbean route, because formerly large amounts of freight were transhipped between the Atlantic and the Pacific by rail across the Isthmus of Panama and the Isthmus of Tehuantepec. At the same time we should not lose sight of the fact that much distinctively new traffic has been created by the Panama Canal, not only because it stimulates the international commerce of the world but also because it has developed the intercoastal and Latin-American trade of the United States.

The Panama Canal has been a real benefit to the domestic commerce of the United States. During the fiscal year ending June 30, 1916, only 444,388 tons of intercoastal trade moved through the locks at Panama, while by 1933 this amount had grown to 7,858,733 tons. This represented 37 per cent of the total business of the canal. Trade with Central and South America has also been stimulated. The canal has been of great benefit to the American merchant marine, particularly to that branch of it engaged in intercoastal shipping. When it is recalled that for an almost unbroken period prior to the World War the steamship trade of the Western United States was virtually monopolized by the Pacific Mail Steamship Company, the strides made by the south and west branch of the American merchant marine are all the more impressive. To be sure, factors other than the Panama Canal and the growth of the merchant marine enter into the trade development to the south of the United States. Among these elements are foreign investments, banking and credit relations, the use of effective trade practices, and political relations.

¹ Johnson and Huebner, Principles of Ocean Transportation (New York, 1920), p. 85.

4 GOVERNMENT ENTERPRISES IN CANAL ZONE

THE CANAL AND NATIONAL DEFENSE

The building of the Panama Canal was dictated by reasons of national defense, as well as by purely economic reasons. It is difficult to tell which consideration bulked larger at the time, although the matter is not of any great practical importance today. However, the defensive function is every bit as important now as it ever was. A navy which can be moved speedily from one coast of the United States to the other is the crux of war-time strategy. The same savings in sailing distance and time enjoyed by merchant ships are also shared by naval vessels. Naval squadrons concentrated at either entrance of the canal can reach the midpoint of the Pacific Coast in nine days and the center of the Atlantic Seaboard in five days.

The United States Navy does not maintain a large permanent force at the Canal Zone. The principal naval bases are located in the United States, and a submarine base is the only strictly naval establishment on the Isthmus. The forces of the Army are proportionately much greater, the reason being that the canal must be thoroughly protected from every attack in order to assure the Navy's ability to transit the canal in war time.

The problem of civil administration and the conduct of commercial operations on the Canal Zone are affected very appreciably by the naval and military requirements of this strategic strip. About eleven thousand persons, almost onethird of the Canal Zone population, are accounted for by the Army and Navy forces stationed there. Because the Panama Canal is so essential to the national defense, due consideration of this fact must be taken when clashes of interest arise between the civil and the military organizations on the Isthmus. The Canal Zone must be in a position to bring about a speedy transition from peace to war-time conditions. Partly on this account, and largely because engineering was the primary consideration during canal-digging days, an Army engineer has invariably been appointed Governor of the Canal Zone since the creation of that office in 1914. He reports to the Secretary of War in Washington.

Important as the defense function undoubtedly is, sight should never be lost of the primary purposes of the Canal Zone services. "The Canal Zone, above all other places in the world," said Governor Morrow in 1921, "is a government reservation with one broad mission, viz., to serve the world's commerce expeditiously and well, and to bend all governmental functions to this end along practical and economic lines."

Shortly after the Panama revolution in 1903 several important statements relative to the government's purposes in the Canal Zone were made by President Roosevelt, Secretary of War Taft, and others. From these pronouncements it appeared that the intentions of the United States were very circumscribed indeed. "We have not the slightest intention of establishing an independent colony in the middle of the state of Panama, or of exercising any greater governmental functions than are necessary to enable us conveniently and safely to construct, maintain, and operate the canal under the rights given us by the treaty," President Roosevelt stated in 1904. This was the policy of the government then and it is today. But words such as "necessary," "conveniently," and "safely" are subject to infinite expansion. With the final drive to complete construction it was found that adequate attention to the health and welfare of Americans working in a disease-infected tropical region underlay all other considerations. This meant a civil government, schools, pure water, electricity, stores, entertainment--all of the requirements of modern life in the United States. Afterward health conditions had to be maintained, and life in the Zone had to be made attractive, if the best type of Americans was to be retained. Life in the tropics requires men and women of fine mettle. The point is that many of the functions which are carried on in the Canal Zone are not to be explained simply by the engineering and commercial requirements of the canal and the railroad. Many of the services

6 GOVERNMENT ENTERPRISES IN CANAL ZONE

maintained in the Canal Zone are not primarily for use by the outside world. These social developments are local rather than international utilities. Hence, it is simply stating a fact to say that in actual practice one of the primary objectives of the Canal Zone administration is that of developing and of maintaining the health, welfare, and enjoyment of all employees located in this self-contained Isthmian stronghold.

COMMUNITY LIFE IN THE CANAL ZONE

Nothing is more natural than that Americans, many of whom have devoted their entire adult lives to the canal administration, surrounded as they are by a people largely of another color, a foreign tongue, and unfamiliar customs, should develop a strong feeling of local pride. Someone has called the Canal Zone a "complete socialism," inasmuch as all essential services are publicly provided. Residents of the Zone are proud of their community life, of their public services, and of the way in which a naturally beautiful spot has been made a show-place of the world. The American in Panama is hostile toward anyone who attempts to deprive him of the fruits of community co-operation, just as some business men in Panama and in the United States are piqued because they cannot compete for employees' business and the profits which would result therefrom. There is probably as much local pride in the Canal Zone as there is anywhere in the United States. Appreciation of this fact is essential to a knowledge of Isthmian administration.

In an area of land as small as the Canal Zone, having nowhere to travel except by sea, close beside an intermingling of races unsurpassed by few places in the world, and living within a heavily fortified encampment, it is natural that American residents should turn inward—make the best of their environment and opportunities. In the Republic of Panama outside of the Zone there are roughly 50,000 whites, 85,000 Negroes, 33,000 Indians, 3,000 orientals, and 268,000 mestizos, i.e., persons of mixed blood. In the Canal Zone, an area of five miles

on either side of the canal and about fifty miles wide, there are 2,853 white employees and 8,673 employees of color. Since an early period the whites have been called "gold" employees and all others have been called "silver" employees. The distinction arose in the gold-rush period, owing to the difference in coinage employed in payment of wages. The total civil population is 31,839 and the Army and Navy account for 11,012, making a total population of 42,851. The peak number of "silver" workmen since construction days was reached in 1929, when 14,200 were employed. Retrenchment in the number of aliens employed has created a problem for Panama, where practically all of them congregate. What is to be done with the three thousand or so former employees of West Indian origin? Many of these unemployed have families and their children grow up in indolence. This influx of population, added to the fact that immigration laws have not been effectively enforced (and perhaps never can be), has created chronic social problems for Panama. On the whole, however, living conditions are better in Panama than they are in any other Caribbean or Central American country.

The problem of providing positions for the second generation of "gold" employees has already raised some chronic social difficulties and the situation is likely to get worse rather than better. Some of the original canal-diggers have raised large families, and this generation has reached maturity. Most of the young people prefer to remain in the Canal Zone, where they are known and where their parents, if thrifty, have been able to save money. In the last thirty years a greater demand for positions has been created than can be filled from Canal Zone requirements. This circumstance undoubtedly contributes to the desire of older employees to increase the number of services and to protect the number of jobs. This is not the only factor which causes the expansion of services and the dogged defense of established positions, it need hardly be said; every head of an administrative unit is anxious to increase his authority and prestige. But paternal solicitude for the oncoming

8 GOVERNMENT ENTERPRISES IN CANAL ZONE

generation is unquestionably one of the factors which, with unusual significance in the Canal Zone, as we shall see, leads to social stratification and an ingrowing bureaucracy.

Within the Canal Zone the residents are, with few exceptions, either Americans or West Indian Negroes. These British subjects speak English exclusively and hence have more in common with the Americans than with the Spanish-speaking Panamanians. However, more West Indian employees reside in Panama than in the Canal Zone, and the administration's policy is to limit the number who may live in the Zone. Relations with the West Indians have been satisfactory. In the Canal Zone there are separate housing developments, schools, and even drinking fountains. The situation does not differ materially from that found in colonial possessions where white men and men of color are brought into contact.

Social relations between the Americans in the Canal Zone and the Panamanians across the imaginary line are quite limited. Very few Americans learn to speak Spanish, even when they have resided on the Isthmus for many years. However, most Panamanians do have some familiarity with the English language, and a gradual process of Americanization may be clearly noted. There are several outstanding cases in which Americans have married Panamanians, usually those who are of Castilian stock. Between the highest officials in the Canal Zone and the élite of Panamanian society social relationships are cordial and frequent, but as a rule the ordinary American employee does not mix socially with Panamanians. The American employees of the Canal Zone live unto themselves; they are not colonizers in any sense.

Most of the life of the Canal Zone, as of Panama, is concentrated in two areas, one on the Atlantic side and the other on the Pacific. The urban center on the Atlantic is built around Limon Bay. Although Colon is under Panama's jurisdiction and Cristobal is American, the two cities are really one urban area separated by an imaginary line. Most of the land in Colon is owned and leased out by the Panama Railroad Companya point of friction which has existed for many years. Similarly, on the Pacific side Balboa, Balboa Heights, and Ancon (all in the Canal Zone) are contiguous to Panama City, again separated merely by an imaginary line. The Administration Building and the seat of government are located at Balboa Heights, in a beautiful spot overlooking the Pacific.

Because of the proximity of the principal Panamanian municipalities, Colon and Panama City, the Canal Zone administration realized from the outset that health and sanitary conditions would have to be controlled across the imaginary line if Americans in the treaty area were to be safe. Hence, streets were built with American money, sanitation was improved by American health officers, and a healthful water supply was furnished to Colon and Panama from the American side. The government of Panama still receives assistance from the Health Department of The Panama Canal, and the water supply remains a unified administration under American control.

Although practically every need of the residents is supplied by the government, the average individual soon becomes used to paternalism and thinks nothing about the circumscription of traditional American individualism. He realizes that he is living in a national fortress. As a matter of fact, the Canal-Zoners are as individualistic as any other group of Americans, while at the same time they are contented with the collectivist fulfilment of their wants. No one owns his own house; all residences were built by the government and are turned over to the individual during his active employment on a monthly rental basis. The furniture in Canal Zone residences is also owned by the government rather than by the employees. All medical needs are supplied by Canal Zone hospitals and their staffs. From the commissaries every household need can be supplied-including foodstuffs, clothes, and luxuries. In convenient locations all over the Zone recreation centers have been established by the Canal administration. These are the equivalent of social clubs; and in addition to the ordinary games which are popular with Americans, motion-picture performances are offered regularly.² The employees and their families pay for these services in the form of rent, script, or cash. Also, one finds available the ordinary services of an American community, such as schools, libraries, playgrounds, and swimming pools.

The plan of life in the Panama Canal Zone was not laid out by Socialists, contrary to the ideas apparently held by some conservatives in the United States. The only striking similarity between the Canal-Zoners and the Socialists is that both groups demand honesty and ability in public life, and hence they conclude that government can be as efficient and as constructive as any other organization. But the fundamental explanations of the Zone's "complete socialism" are to be found along other lines. In the first place, real estate cannot be owned in the Canal Zone by individuals or by private corporations. Then, too, the Canal administration has had to assume the responsibility for supplying the necessities and the conveniences of life in order to maintain the caliber of morale that would assure permanence and efficiency. Life in the tropics takes the starch out of a man, and it is particularly hard on women and children. Latent dangers to health exist which were never found in so virulent a form in the United States. The policy has naturally been to make the Americans in the Canal Zone as comfortable and as contented as possible. This is the generally accepted program of corporations and of foreign governments which have established settlements in tropical areas. The Canal Zone development is paralleled by the community centers of the United Fruit Company and other large trading concerns. At times certain members of Congress state that Canal-Zoners are "coddled" too much. If they themselves were to live in the tropics for two years or more they would undoubtedly change their minds.

² The Bureau of Clubs and Playgrounds provides bowling, billiards, cards, motion pictures and theatricals, dances, reading-rooms, restaurants, cigar and news stands, barber shops, bathing beaches, swimming pools, athletic fields, playgrounds, and gymnasia.

RELATIONS WITH PANAMA

Although the purpose of this study is confined to the administration of the government-owned economic services in the Canal Zone, underlying many questions of importance is the past, present, and future of American relationships with the Republic of Panama. As a matter of fact, probably no other aspect of the Governor's responsibilities gives him so much concern as the effort to secure and maintain cordial relations with the Panamanian government. Although he lacks authority to carry on official diplomatic relations, the Governor must be a real diplomat. Every diplomatic issue of importance arises in the Canal Zone. The Latins and the North Americans are thrown into greater propinquity on the Panamanian Isthmus than in any other sector of Central or South America. The relations between Panama and the United States are so complicated that even persons with years of experience are left puzzled by the intangible factors coloring the problem. All we hope to do in this brief compass is to mention some of the outstanding problems which have a direct or inferential bearing on the administrative services which we will survey.

The first article in the treaty that was signed between Panama and the United States after the revolution of 1903 provides that "the United States guarantees and will maintain the independence of the Republic of Panama." It grants to the United States the right and authority to intervene "for the maintenance of public order in the cities of Panama and Colon and the territories and harbors adjacent thereto in case the Republic of Panama should be, in the judgment of the United States, unable to maintain such order." The treaty provides that the United States may take whatever measures it considers necessary for the safety and protection of the canal, that it may employ its land and naval forces to execute such measures, and that it may establish fortifications to protect the canal. The treaty then goes on to give the United States the ten-milewide Canal Zone strip in perpetuity, also the use, occupation, and control of any other lands outside the Zone which may be

necessary for the construction, maintenance, operation, sanitation, and protection of the canal or any auxiliary canal or other works. It gives the United States in perpetuity a group of islands in Panama Bay and further stipulates that the United States may acquire any lands in the cities of Panama or Colon, or adjacent to their harbors, by the right of eminent domain. The right to carry on all sanitary activities in Panama and Colon, Panama's principal cities, is also guaranteed to the United States.

By a contract entered into between the Panama Railroad Company and the government of Colombia in 1867, the corporation was given exclusive transportation rights across the Isthmus. The monopoly of trans-Isthmian travel by land is still possessed by the government-owned Panama Railroad Company. Within recent years the Republic of Panama has represented that it wishes to build a motor highway across the Isthmus, paralleling the railway. The United States has indicated open-mindedness about waiving monopoly rights in case the road can be adequately financed and is otherwise satisfactory. Nevertheless, Panama is impatient and critical.

The contract of 1867 stipulates that the Panama Railroad Company shall have "the exclusive right to establish across the Isthmus of Panama any class of carriage roads whatever, from one ocean to the other. The Colombian Government binds itself not to undertake for itself, nor to permit any other company or person to undertake, within said Zone any other carriage-road, either macadamized, or of plank, or of any other class suitable for the use of wheeled vehicles, between the two oceans across the Isthmus of Panama." At the time the agreement was made the Colombian government was so anxious to have a transportation system, which it was unable to provide for itself, that the concession appeared entirely reasonable. Panama, the successor to Colombia in this agreement, wants the Panama Railway Company to waive its exclusive right. But if Panama is permitted to build a road, what will the effect be on the government-owned railway? Could it compete

successfully? Perhaps new sources of revenue could be uncovered as an offset. There is a possibility that the road may be built within the Canal Zone by the United States.

The real estate of the city of Colon, second largest city in Panama, is the property of the Panama Railroad Company except an equivalent of about eleven city blocks which the company transferred back to the Panamanian government for municipal purposes. However, these blocks were used to house the restricted district and part of the business district, and it became necessary to rent to the Panamanian government, at nominal sums, additional lots for municipal buildings, such as schoolhouses, police and fire stations, etc. The government of Panama exercises civil control and collects building taxes from those who lease land from the Railroad company. The Republic of Panama contends that all, or at least most, of the land owned by the Railroad should be relinquished as soon as possible. The Panama Railroad Company points to the fact that it filled in the land, converting it from a swampy morass; also, the financial interest of the company must be safeguarded. Perhaps the problem can be speedily solved by a quid pro quo agreement which will be mutually advantageous to both American and Panamanian interests.

The Panama Railroad operates the commissaries—grocery and department stores rolled into one—in the Canal Zone. Practically as soon as the United States began to increase its forces on the Isthmus in 1904, it was apparent that the local business concerns were not equal to supplying the needs in the way of subsistence, clothing, etc., and that they were charging exorbitant prices; consequently in 1905 the Isthmian Canal Commission resolved to rectify this situation by extending the Panama Railroad commissary service. This move brought forth violent protests from the merchants of Panama and those who were at that time located in the Canal Zone. Naturally, they objected to the government's going into business in this fashion, because they would have liked to have had the business themselves. Panama City is thriving and prosperous in

14 GOVERNMENT ENTERPRISES IN CANAL ZONE

comparison with other non-industrial capitals of Latin America. However, the merchants say that Canal Zone business means little to the rich United States, but that it would mean much to them if all of it came their way. They object particularly to the sale of "luxuries," such as rugs, perfumery, and jewelry. A provision of the Hay-Bunau-Varilla Treaty provides that the United States may import at any time into the Canal Zone, free of customs duties, "all provisions, medicines, clothing, supplies, and other things necessary and convenient for the officers, employees, workmen, and laborers in the service and employ of the United States and for their families." Panama contends that "necessary and convenient" has a more restricted meaning than the Zone officials have given it. In past years she has also complained about the use of commissary privileges by those who were not strictly employees of the United States government in the Canal Zone or employees of the Panama Railroad Company. Recently this phase of the problem has been settled to the satisfaction of the Panamanian government, as has also the right of Panamanian merchants to sell their wares to ships traversing waters within the Canal Zone.

The adjustment of major controversies, and of other minor ones which need not be mentioned in this discussion, requires the close co-operation of the diplomatic representatives of the United States with the Canal Zone administration. The temperamental differences, the historical residues, the political intrigues, the *raison d'être* of newspaper invective, the seeming impossibility of satisfying a weaker nation which has come under the wing of a powerful one—these are some of the baffling factors which complicate Canal Zone relations with Panama.

GOVERNMENT OF THE CANAL ZONE

The government of the Canal Zone has raised some new and interesting problems for the political scientist. One of the most important questions which constantly arises—because it influences almost every other issue—is the legal and governmental status of the Canal Zone and the Panama Railroad Company. The Panama Canal occupies a singular position within the constitutional framework of the United States. It is neither a territory nor a possession. As General Goethals once said: "A novel problem in government was presented by the necessity of ruling and preserving order within the Canal Zone. While some experience had been gained in the insular possessions, a new situation existed which had to be solved, and after various changes there was evolved a form of government which was unique, differing from any established methods of administration."

By the terms of the treaty which was ratified by the United States and Panama in 1903, the United States was granted in perpetuity the use, occupation, and control of a strip of land ten miles wide extending across the Isthmus, five miles on either side of the canal that was to be constructed. The transfer of sovereignty from the Republic of Colombia to the Republic of Panama vested in the latter all rights (e.g., reversion after the expiration of the lease) which the former held in the Panama Railroad Company, and these rights were transferred to the United States by a specific provision in the treaty. In other words, the United States gained control of the Canal Zone and the Panama Railroad Company at one and the same time.

A large part of the discussion relative to the legal status of the Canal Zone government appears to have been speculative rather than practical. However, these analyses have frequently thrown new light on the subject. Hugh Gordon Miller, in his book, *The Isthmian Highway*, has pointed out that although the United States has acted as physician, policeman, and laborer in the Canal Zone, "this does not mean that the United States claims a sovereignty over these regions or ownership in fee simple and absolute." Still it may be said that "perpetuity" is a rather long time! But, it will be objected, the important question is not the time factor but the permissible powers of the United States as defined in the treaty. General Davis, the first Governor of the Canal Zone, regarded the United States' jurisdiction as "assigned sovereignty," while others have attempted to draw an analogy to a "mandate" as developed under and recognized by the League of Nations. The latter notion clearly appears to be far-fetched and misleading. The Canal Zone is customarily referred to as a "perpetual concession" or as "territory under the jurisdiction of the United States."

A fruitful line of pursuit is to analyze the actual limitations upon the United States' complete jurisdiction in the Canal Zone. The United States would not be expected to alienate the property in the Zone; this is patently of no practical importance. The United States has agreed not to impose customs or other duties on the commerce of Panama or of other countries. These agreements are not absolute limitations upon the United States, but they might be changed by later action between the two countries. So it is with all implied or express limitations under which the Canal Zone is governed; they are in the nature of abnegations and comity rather than rigid legal prohibitions.

Article 3 of the treaty provides that the United States shall have all the rights, power, and authority which "the United States would possess and exercise if it were the sovereign of the territory . . . to the entire exclusion of the exercise by the Republic of Panama of any such sovereign rights, power, or authority."

The government of the United States bought all of the stock of the Panama Railroad Company in 1904. The treaty with Panama provided for this action, which meant that the French canal company was divested of its ownership of the Railroad Company. Since that time the Secretary of War, representing the United States government, has voted the stock of the corporation. The Governor of The Panama Canal automatically becomes president of the government-owned corporation. But the corporation's actual powers are stipulated in its charter, which was granted by the state of New York in 1849. Like other early charters, the Panama Railroad's is extremely liberal, leaving room for almost any activity the corporation might wish to undertake. The treaty with Panama recognized the existent (1867) contract between the Railroad and the Republic of Colombia, which had extended the lease of the Panama Railroad Company to 1966 and stipulated that all reversionary rights should pass to the government of the United States at the expiration of the contract.

Having been incorporated in the state of New York, the Panama Railroad Company is subject to the jurisdiction of American courts. The corporation has power to sue and to be sued, such actions usually being brought in the Federal District Court of the Canal Zone. Cases in which Panama is interested as a sovereign state, however, must clear through diplomatic channels. Panama receives an annual franchise tax of \$250,000 from the United States. This obligation was originally incurred by the Panama Railroad Company, but the government has since chosen to make the payment itself. Under the terms of the contract of 1867 the Railroad Company is exempt from any and all forms of taxation by Panama. This immunity applies to the corporation's holdings in Panama proper, involving most of the city of Colon. These and other jurisdictional problems will be discussed more fully below.

The Canal Zone has, for such a small area, a singularly large number of co-ordinate jurisdictions. Few areas of similar size in the United States present more difficult problems of governmental relationship. In addition to The Panama Canal administration, the Panama Railroad Company's interests, and the civil government (all of which are subject to the Governor's control), there are separate and independent jurisdictions under the Army, the Navy, and the United States Department of Justice. The Attorney-General's department maintains the District Court, the district attorney, and the minor judicial officials. In most cases the several establishments mentioned above are wholly independent of each other. When issues arise affecting two or more establishments, such as joint use of the canal or of land by the Zone administration and the Army, the jurisdiction is co-ordinate. The Army has been granted

certain reservations on the Zone within which it carries on its activities but which are "subject to the civil jurisdiction of the Canal Zone authorities in conformity with the Panama Canal Act," as provided in the Executive Orders of the President setting aside such reservations.

There is no legisltive body in the Canal Zone government; all laws pertaining to the Zone must be passed by Congress. Not all provisions of the Constitution apply to the Canal Zone, and only those laws of Congress do which expressly provide therefor. American citizens living on the Isthmus never have occasion to vote—unless they return to their homes in the United States.

When the problem of governing the Zone arose, Congress provided for an Isthmian Canal Commission of seven members. This body, members of which were appointed by the President and confirmed by the Senate, functioned between 1904 and 1014. Its defects soon appeared. Irresponsibility, vacillation. partisanship, and frequent clashes among members became chronic complaints. Finally General Goethals and other Army officials who were in charge of construction rebelled openly against the system. A board, in the Army's view, is long, hard, and narrow. Secretary Taft also called the President's attention to the cumbersome and unwieldy character of the Commission's proceedings. In 1908 all authority was vested in the Chairman of the Isthmian Canal Commission. Thereafter the Commission merely ratified executive actions when required. "This arrangement," General Goethals later wrote, "permitted the subordination of everything, including the Panama Railroad, to the construction of the canal, and resulted in the establishment of an autocratic form of government for the Canal Zone."

The Isthmian Canal Commission was not abolished until the provisions of the Panama Canal Act went into effect. General Goethals was appointed Governor by President Wilson in 1914. There have been only five governors appointed since that time; all of them have been Army engineers, and all have made a conspicuous success of the office.

BACKGROUND OF ISTHMIAN ADMINISTRATION 19

The Governor is appointed by the President and confirmed by the Senate for a four-year term. Every Governor since Goethals has gone to his office after serving as Engineer of Maintenance, the office next in importance to the Governor's. The Engineer of Maintenance generally serves four years. Realizing that succession to the Governor's office is customary, great care has been taken by the Secretary of War in selecting a man for the position of Engineer of Maintenance from those recommended by the Chief of Engineers of the War Department. It is no exaggeration to say that freedom from partisan appointments and the experience which a Governor has when he comes into office have been largely responsible for the honesty and excellence of Panama Canal administration. The plan is miles ahead of the system of political appointments usually employed in the case of other American possessions. The present system of executive leadership in the Panama Canal may not be the best possible, but at least it has succeeded in putting men in office who were honest, able, and devoted in their relations to the government-operated utilities in the Canal Zone.

ADMINISTRATIVE PROBLEMS

The problems of public administration in the Canal Zone are as ramified as the services themselves. Because of the isolated character of the Zone they are somewhat unusual and highly interesting. At this juncture we shall merely mention some of the basic problems which will require consideration at later stages.

The most important and at the same time the most difficult problem is that of effecting the best possible division of work between The Panama Canal, which operates on Congressional appropriations, and the Panama Railroad Company, which succeeds or fails on its own financial showing. Is the present division of business functions between the canal administration and the railroad corporation satisfactory, or should additional services be transferred to the corporation? Then, too, is it not objectionable to have certain business units, such as

the commissaries, hotels, and electric signals, owned by the corporation but managed by Panama Canal personnel? If so, the problem arises of suggesting a practical method of correcting the working relationship. Perhaps a new corporation should be formed, incompassing both of the existing organizations. These are tough practical problems which Canal Zone officials have been mulling over for years.

We shall have to discover whether the Canal Zone administration is an integrated one, assuring unity of direction and adequate supervision. Are the departments organized along functional lines, and are there too many or too few of them? Financial administration and personnel management hold central positions of importance in any undertaking, and hence we shall have to look into the organization and effectiveness of these Isthmian staff agencies. Attention must also be given to purchasing operations and to public relations activities.

The conduct of public economic services by governments raises distinctive problems of management and control. Light is thrown on many of these questions by the history and methods of The Panama Canal and the Panama Railroad Company. How essential is it that business activities should be given selfcontained finance, operating autonomy, and freedom from legislative and financial interference? The accounting methods of government-owned corporations should be as modern and as thorough as those of any private corporation. To what extent can the efficiency of these undertakings be measured by financial yardsticks, and what other factors, if any, have to be considered?

There is a serious question as to whether business services can be operated efficiently under Civil Service regulations. The hiring, firing, and promotion policies of the government-operated services on the Isthmus are objects of great interest. Remuneration scales and the other factors which go to produce morale will be observed with special attention, because morale and efficiency are much harder to sustain under tropical skies. Within an isolated domain it is natural to expect an inbreeding

BACKGROUND OF ISTHMIAN ADMINISTRATION 21

bureaucracy. What are the advantages and disadvantages of such a system? Should the present career basis be modified in any respects? These are some of the large questions which underlie an examination of all phases of the study. We need to find out why the Canal Zone services succeed or do not succeed and what the principles are which should control the operation of government-owned corporations.

CHAPTER II

DEVELOPMENT OF BUSINESS FUNCTIONS

HE Panama Canal and the Panama Railroad Company are the proprietors of practically all of the public service undertakings located on or related to the Canal Zone.^x The Governor of the Canal Zone is the head of both organizations, and the United States owns every dollar of the capital investment. But The Panama Canal² is an administrative unit directly subject to Congress, the President, and the Controller-General of the United States, whereas the Panama Railroad Company is a government-owned corporation, having its own Board of Directors and being only indirectly controlled from Washington.

SCOPE OF ECONOMIC ACTIVITIES

Both The Panama Canal and the Panama Railroad Company operate public utilities, but the railroad corporation exists solely for this purpose, whereas The Panama Canal is concerned with civil government as well. The Panama Canal owns and operates the ship canal and its appurtenances, the most important economic service in the Zone. It is a great international public utility. The Canal administration also owns and operates other business activities.³ One of them, the Mechanical Division, performs services for nationals of countries other than the United States, as well as for the Canal, the

¹ Private companies operate the Isthmian airplane service, cable communication, a short line of street railway, certain bus lines, commercial motor boats on Gatun Lake, and the gas service to the United States Army.

² Any use of the title "The Panama Canal" (note capitalization of "The") refers to the legal and administrative entity created by Congress as distinguished from the physical aspects of the canal. This is the customary usage.

³ The term "business activity" as employed by The Panama Canal means any service which is not directly connected with transit and for which profitand-loss accounts are kept. Railroad, and the United States Navy and Army. The Fuel Oil Division, which sells a small amount of oil itself and collects handling charges from private companies for the use of its facilities, is a Panama Canal subsidiary. The water supply is owned and operated by the Canal administration. The Electrical Division, one of the principal business functions, and one of the most profitable, falls within the same category.

The government-owned Panama Railroad Company, on the other hand, owns the railroad line, the steamship line, the baggage-transfer service, the Colon stables, the Cristobal docks and piers, the coal plants, the telephone system and the electric clocks, real estate located in Colon and Panama City, the Washington Hotel, the cattle industry and dairy farms, the commissaries, and the plantations.

The list of services operated in the Canal Zone, given in chronological order, may help to impress upon the reader the various stages by which Isthmian enterprises have developed (see Table I). Only the more important of these economic services will be dealt with in detail.

While the division of ownership of property between The Panama Canal and the Panama Railroad Company is definite, the administrative relationship is complicated. In some cases there is ownership by both and operation by one, as in the case of the wharves on the Pacific and Atlantic entrances to the canal. In other cases there is ownership by the Railroad and operation by the Canal, such as the telephone system and the commissaries. Finally, there is ownership by the Canal and operation by the Railroad, the Hotel Tivoli being the only instance of this. These relationships, and the overhead control by which they are co-ordinated, will be the subject of discussion in the next chapter. The extent and complexity of the relationship has been referred to at this point in order to emphasize the scope of the operations and the resulting necessity of furnishing a historical perspective as a background on which to locate the existing services. In other words, the purpose of the present chapter is to trace the origin and expansion of

TABLE I

YEAR IN WHICH ISTHMIAN ENTERPRISES WERE STARTED PANAMA BAILROAD COMPANY

Railroad line proper: First train from Aspinwall to Gatun...... 1851 First through train from Aspinwall to Panama... 1855 Coal plants..... 1876* Real estate operations 1878* Telegraph stations..... 1878* Commissary..... 1885 Telephone system..... 1904* Bakery..... 1906 Hotel operations. 1906 Ice-manufacturing...... 1907 Coffee-roasting plants. 1908 Industrial laboratory..... 1908 Colon stables..... 1909 Cattle industry 1915 Dairy farms..... 1917 Printing telegraphs..... 1925 THE PANAMA CANAL Water supply..... 1904 Electrical service (power plant built in 1898 by Rental of lands..... 1904 Animal transportation..... 1905 Panama Canal Press. 1905 Postal savings..... 1911 Panama Canal proper. 1914 Fuel and Diesel oils 1914 Ship chandlery 1914 Motors..... 1915 Salvage operations..... 1916 Rental of quarters. 1922 Ferry service 1927

* Probably begun prior to this date.

the respective services performed by the Panama Railroad Company and The Panama Canal.

EARLY IMPORTANCE OF THE RAILROAD

At the present time the canal is without doubt the most important development on the Isthmus; it gives life and vitality to everything else. The railroad and the other services are merely adjuncts of the canal. But it should be observed that this situation has existed only since the completion of the canal in 1914, while during the much longer period from 1855 the railroad held the limelight. In the early years of its operation the railroad—the first transcontinental railroad to be completed in the Americas—was hailed as a marvel quite as much as was the canal years later. Hence, if we are to obtain historical perspective and if we wish to follow the evolution of the first American enterprise on the Isthmus of Panama, the railroad rather than the canal should be considered first.

Since 1849, when the Panama Railroad Company was first chartered, we may note three principal periods of public utility development. The first period ended in 1904, when the United States government took control from the French company; the second period came to an end in 1914 with the opening of the canal to commerce; while the period since that time has been characterized by the expansion of the older services and the creation of new ones. The entire span of years from 1849, and earlier, has witnessed the paramount importance of American initiative on the Isthmus, except for the years 1881–1904, when two French companies successively controlled the Panama Railroad Company and attempted to dig the canal.

The route across the Isthmus of Panama was a heavily traveled one long before American interests commenced to concern themselves in its possibilities about 1835. The old Las Cruces Trail, with its stony surface worn smooth by thousands of horses' hoofs, may still be seen in a state of good repair not far from the Madden Dam site. An effort to secure the transportation rights across the Isthmus was begun by an American

25

named Biddle as early as 1835, and his overture to the government of New Granada eventually resulted in his securing a decree permitting the construction of a railroad across the Isthmus. Nothing further was done until 1848, when three Americans—William H. Aspinwall, Henry Chauncey, and John L. Stephens—secured a concession from New Granada (later the Republic of Colombia) for the building of an Isthmian railway. The charter of the Panama Railroad Company, which they secured from New York State in 1849, is the present charter of the government-owned corporation.

The story of railroad construction, which was completed in 1855, is thrilling indeed and has been well told by several authors.⁴ Suffice it to say here that the financial venture, which was on the point of collapse, was saved by the California gold rush. The company charged first-class passengers \$25 for the forty-seven-mile ride across the Isthmus. Immediately upon completion of the road, the company had all the freight it could haul, with the result that the line became a moneymaker. The original investment amounted to over \$8,000,000. In the following years Panama Railroad stock became one of the most popular issues in the New York stock exchange, and men like Russell Sage swelled their fortunes on its earnings. Annual gross earnings of from 50 to 100 per cent on the investment were realized in some years, the most prosperous year being 1868. During the first ten years of its operation the railroad transported over \$700,000,000 worth of specie and 300,000 bags of mail. After a period of security skyrocketing on the stock exchange, the railroad fell on evil days. It was mismanaged. However, between 1883 and 1892 the average annual dividends amounted to 7.2 per cent. Operations in the following year, the panic year of 1893, resulted in a deficit, the first loss to be recorded.

A new ninety-nine-year contract was signed with Colombia

4 F. N. Otis, *History of the Panama Railroad* (New York, 1867); Robert Tomes, *Panama in 1855* (New York, 1855); Tracy Robinson, *Panama, 1861–1907* (New York, 1907); Forbes Lindsay, *Panama and the Canal Today* (Boston, 1926). in 1867. This agreement, as has been said, has controlled the fundamental relationships between the Panama Railroad Company and the Republic of Panama since the revolution of 1903.

With the granting of a concession to build a canal to the French "Panama Canal Company," De Lesseps and his confrères found it necessary to obtain control of the Panama Railroad for construction purposes. In 1881 the French interests succeeded in buying all except a few of the shares of the company, whereupon they reduced rates on the railroad in order to lessen the expense of constructing the canal. This action naturally resulted in greatly reduced earnings. As a consequence, the holders of the outstanding stock in the United States applied to the Supreme Court of New York for an injunction, alleging the deprivation of their property without due process of law. The injunction was granted. As a conciliatory move the French company reconstituted the Board of Directors, appointing several American members. However, the first French company failed in 1880, and canal construction completely collapsed. The second company was organized in 1803 and continued operations until, in accordance with the treaty of 1003 between the United States and Panama, the French investments in the canal and the Panama Railroad Company were secured by the government of the United States.

GOVERNMENT OWNERSHIP AND OPERATION

The price paid by the United States was \$40,000,000, and of this amount \$7,000,000 represented the capital investment in the Panama Railroad Company. The capitalization remains the same to this day. When the railroad properties were taken over, they were in a state of utter disrepair. Renewals and depreciation had been completely neglected during the final years of the ill-starred project. Yet the canal could not have been built without the railroad, and since 1904, when the United States government secured control of the company, dividends

27

aggregating 125 per cent upon the capital stock have been declared by the Board of Directors; these dividends, amounting to \$8,744,905, have been turned over to the Treasury of the United States. Probably no corporation in American history has had a more colorful financial record than the Panama Railroad Company. This observation applies to the depression years since 1929 as well as to the early period.

When the United States government took over the Panama Railroad Company it found itself the owner of a shipping line the Panama Railroad Steamship Line. This fact greatly disturbed Mr. Taft, who wanted to keep the government out of business; but after a complete survey of the situation he and the other directors concluded that the service should be continued. Weekly sailings between New York and the Canal Zone still take place. At certain periods in the past the shipping line of the Panama Railroad Company has been of considerable size and importance. The company first organized a shipping line in 1855, and at one time or another operated to the Pacific Coast, to the west coast of South America, and to Central America. A separate chapter will be devoted to this part of the corporation's activities.

Work on the Panama Canal was recommenced in 1904, and the locks were opened to the first ships just before the outbreak of the World War. During this ten-year period the railroad was worked harder than at any time in its entire history. With the flooding of what became Gatun Lake, a large part of the railroad line had to be rebuilt in a new location. The shipping line also performed an invaluable service during the canaldigging decade. So burdened were the facilities of the Panama Railroad Company that traders on both coasts justifiably complained that their shipments were delayed. Every energy was being spent to complete the canal.

During this period the Railroad Company began to be subordinated to the interests of the Canal. This was entirely natural at the time, but its significance did not end with the completion of construction. The character of the Railroad corporation has been continually altered up to the present day, particularly in respect of its independence and autonomy of administration.

A second tendency also developed and became fixed during the decade of canal construction—Army officials rapidly assumed the positions of greatest responsibility. Where formerly civilians such as Ralph Budd and John F. Stevens had been the dominant figures on the Isthmus, after construction got well under way the Goethals type dominated—if, indeed, a singular man of steel like Goethals can properly be called a "type." To this day the two highest positions in the Canal Zone have been held by Army engineers.

ANCILLARY SERVICES OF THE RAILROAD

The Panama Railroad Company had available for use in canal construction several invaluable ancillary services in 1904. Feeding and provisioning the hundreds of employees was simplified because the Railroad had a commissary system already in operation, with a purchasing department in New York and a steamship line to make deliveries. So important did the commissary's work become that in 1908 it was put on a separate basis so far as plant, amortization, operation, and revenue were concerned. Docks and piers, coal plants, and a baggage service were all functioning. The company's real estate holdings in Colon and Panama City had already been acquired.

The development of activities and the fact that a particular service is connected with the Railroad or the Canal often is explained solely by expediency. No farsighted plan of expansion has ever been devised. In 1908 the Washington Hotel was transferred from the Canal to the Railroad, and in 1911–13 it was rebuilt. However, the hotel on the Pacific side of the Isthmus, the Tivoli, continued to be operated by the Canal until 1929, and legal title is still vested in The Panama Canal. It was finally turned over to the Railroad because, in the words of former Governor Burgess, "it was found very difficult to operate a commercial business like the running of a hotel and

strictly conform with government rules and regulations, which could be obviated by transferring the operation of the hotel to the Panama Railroad Company."

The Panama Railroad Company went into the stable business as a move toward better sanitation. The private stables were a source of disease. The Governor desired cement ones and the Railroad had the necessary money.

The cattle industry sprang up, a unit of the Railroad, because a local supply of meat was considered necessary in case of a war-time blockade. The dairy farms and the plantations are also owned by the Panama Railroad Company. There is a close relation between them and the commissary, which is owned by the Railroad but not operated by it.

GROWTH OF CANAL FUNCTIONS

The minor functions of The Panama Canal have evolved in much the same way. A supply of pure water was an absolute necessity; the Canal supplied it. Electricity was needed for power and lighting; Canal Zone engineers have made a large and cheap supply of it available. Employees needed living quarters and recreation facilities; the Canal provided them. A great deal of printing had to be done; the Zone operates a firstclass printing establishment. Ships transiting the canal require repairs, as does equipment located on the Isthmus; hence the Mechanical Division. Fuel oil was needed on the Zone and by craft transiting the canal. The Panama Canal became the filling-station proprietor.

The outstanding financial success of the Panama Railroad Company has already been mentioned. The results achieved by The Panama Canal have also been gratifying. Between 1914 and 1933 the net appropriation expenses of The Panama Canal amounted to \$154,648,154, while the net revenues during the same period were \$172,799,585. If throughout its history a capital interest charge of 3 per cent on the present investment of \$539,200,059 is made, the net earnings are found to fall only \$17,343,666 short of a 3 per cent profit. Between 1926 and 1930, years of prosperity, the Canal earned a surplus over and above the 3 per cent capital interest charge of \$8,308,330.⁵ An arbitrary capitalization of The Panama Canal was not adopted until 1922, nor were interest charges computed prior to that time.

The Panama Canal is run as a government department; it receives appropriations, and its revenues automatically go into the United States Treasury. The Panama Railroad Company, on the other hand, is run like any other corporation; it makes its money before it can spend it, and it builds up surpluses. Are the differences between the nature of the work performed by the two organizations so different that one should be run wholly as a business undertaking while the other is only partly so? If The Panama Canal is a prosperous international utility, why should it not be operated as one? Why should it not be a mixed business corporation like the Suez Canal or a government-owned corporation like the Panama Railroad Company? Whether or not this type of organization and control would be desirable may be judged in part from any conclusion reached relative to the merits of the Railroad corporation. Whether a transformation of The Panama Canal's legal and financial status is practicable and possible is still another question-tougher than the first. Perhaps a reorganization and regrouping of services which are at present partly under Railroad control and partly under Canal management is the most desirable solution of the problem. This plan is also fraught with practical difficulties. It may be that the status quo, crazy quilt of historical accidents that it is, provides a desirable plan of operation and control. The next chapter, in which we shall examine institutional relationships and overhead control of administration, should afford some of the data which enter into a final judgment on this the most important of all issues raised by the present study.

Annual Report: Governor of The Panama Canal (1933), pp. 124, 142.

CHAPTER III

RELATIONSHIPS AND CONTROL

The Canal-Railroad establishment of the Canal and the Railroad is essentially an industrial, or public utility, concern, differing widely from the usual governmental department, the principal function of which is to perform certain non-remunerative services with funds appropriated for the purpose. Narrow limits are set as to the use of said funds. The Canal-Railroad establishment, on the other hand, performs services of all kinds in the nature both of an international public utility and of a public service corporation supplying local services. Experience the world over proves that business functions can be handled best by business-like methods rather than under the narrow restrictions placed by the legislature on appropriations and by the legislative body and the Treasury on expenditures of public funds.^t

The departments of the Canal-Railroad can be grouped, from the standpoint of financial practice, into three classes: (1) those of the Railroad, which are free to use their revenues to pay the cost of operation and maintenance, to set aside reserves for replacement, to accumulate a surplus for expansion, and to resort to commercial methods of procurement; (2) socalled "business divisions" of the Canal, which enjoy some of these advantages and which are freer in important respects than the ordinary government department; and (3) so-called "transit divisions," which have considerable revenues but also rely upon appropriations. There is a certain amount of overlapping between the last two groups of activities.

RELATION TO CONGRESS

There is a great difference between The Panama Canal and the Panama Railroad Company so far as their relation to Con-

¹ For evidence supporting this conclusion the reader is referred to the author's study entitled *British Public Utilities and National Development* (London, 1933).

gress is concerned. Between the Canal and Congress the relationship is direct and constant; between the corporation and Congress it is indirect, the legislature's power being held in reserve. Every policy affecting the Canal administration is an appropriate subject for Congressional attention; in the matter of appropriations its action is imperative. The policies of the Railroad corporation, on the other hand, are threshed out by its Board of Directors. The theory is that the members of the Board act as trustees for the national interest; Congress merely keeps a general surveillance over the corporation's activities and interferes only when a given course of action conflicts with other interests of the United States. The corporation is thus freed from "politics" and the vicissitudes of party fortune. In the day-to-day conduct of its affairs it is left alone by Congress. Therefore, in theory at least, it possesses the freedom of choice and the elasticity of management which the successful conduct of business enterprises requires.

The amount of discussion and time spent by Congress on the affairs of The Panama Canal is not very great, but the number of general and special acts relating to the Zone is rather considerable. The Canal Zone is so far away that Congress cannot keep a finger on it constantly, as it does in the case of the District of Columbia. Except for an occasional speech on relations with Panama or the requirements of national defense, most of Congress' legislative responsibility devolves upon the subcommittee which holds hearings relative to The Panama Canal appropriations. It is not legislative oratory that makes a practical difference in the conduct of The Panama Canal, or in the operation of any other economic service conducted by the government, for that matter; the principal difference is in finance—in restrictions upon purchasing operations and general financial policies.

The number of times that Congress has legislated since 1904 with direct reference to the Panama Railroad Company is relatively few. The following summary of acts affecting the Railroad will reveal the nominal nature of the relationship:

By act of March 4, 1906, the bonded debt of the Panama Railroad was paid off by an appropriation of Congress. An act of May 27, 1908, prohibits the Railroad from carrying fire or marine insurance. For many years, by the annual appropriation acts for The Panama Canal, Congress has provided that all moneys received by the United States from the Railroad Company need not be covered into the Treasury. By acts of September 7, 1916, and June 4, 1924, federal compensation for injured employees is made to include the employees of the Railroad living on the Isthmus. Again, by act of June 9, 1920, the Railroad was authorized to sell certain lots on the Isthmus, it then being assumed that an act of Congress was essential to legalize this transaction. In comparison with this meager legislative output, the laws relating to The Panama Canal cover nearly eleven hundred pages in four volumes.

In recent years certain members of Congress, particularly some of them on the subcommittee which deals with War Department appropriations, have demonstrated that they either do not comprehend the principles which should guide the conduct of government-operated enterprises or else desire to disregard them. An instance of this attitude will soon be cited. and later we shall discuss the policies which Congress should observe in its relations with the Panama Railroad Company and other public enterprises of a corporate character.²

FINANCIAL CONTROL

The Panama Canal, as we have said, has more financial freedom than have the ordinary departments in Washington. Each year the estimates of Panama Canal expenditures are drawn up on the Isthmus, after which they are defended before the subcommittee on appropriations which deals with War Department appropriations. In drawing up the estimates the anticipated revenues for the fiscal year are computed, and to this figure is added any amount which may be necessary. Prospective expenditures are shown in great detail. Any amount which Congress may have to add to the estimated revenues is

² See infra, chap. ix.

called the net appropriation. The net appropriation for 1933 was \$11,026,293, while during this same period the cash disbursements of The Panama Canal amounted to \$98,246,973. The Canal is enabled to operate in this manner largely because of the existence of a revolving fund amounting to over four million dollars (represented mostly in stores' stock) and also because the law limits the expenditure of revenue from business divisions.

Appropriations to The Panama Canal are in the form of lump sums, permitting considerable elasticity when necessary. For example, more than \$200,000 was spent on land purchases for the Madden Dam, in order to prevent speculation in property values, before a cent of the Congressional appropriation was available. Surpluses from other accounts were diverted in this case, and the readjustment was made after the appropriated sum was available. If there is a prospective surplus from (say) the salaries' account and it is needed for a prospective deficit in another account, the diversion may be made without getting approval beforehand from Washington. Unlike the Railroad, however, The Panama Canal is tied down by ordinary government requirements in its purchasing operations, and all net profits from whatever source must annually be covered into the Treasury of the United States. The Panama Canal may spend what is appropriated; the Panama Railroad may spend what it earns. The Canal relinquishes its profits; the Railroad pays a dividend to the Treasury of the United States of \$700,000 annually but retains or reinvests the remainder.

The financial freedom of the Panama Railroad will be analyzed at a later point, but at this juncture it seems desirable to call attention to a recent attitude of certain members of Congress which seems to threaten the financial and business advantages enjoyed by the government-owned Railroad corporation. That the danger is real is proved by Congress' recent action in calling upon the reserve funds of the Panama Railroad Company for \$2,800,000 this sum to be applied to the

carrying-on of construction work on the Madden Dam pertaining to The Panama Canal. Referring to this unprecedented breach of corporate immunity, the President of the Railroad stated in the 1932 Annual Report of the company as follows:

No corporation can be considered as successfully operated unless it sets aside as part of the current costs proper charges to cover replacement, and retains the funds so accumulated for use in making replacements when necessary. The accumulation of such a reserve fund has been a basic practice of your company, which is one of the few successful government-owned corporations of the United States. The practical direction of the Board of Directors by the Appropriations Committee to utilize a large amount of the company's reserve fund for application to a purpose quite foreign to that for which the funds were set aside indicates that the Appropriations Committee did not realize how serious the effect of destroying the reserve funds of the Panama Railroad will be on the operations of the company.

The most disturbing evidence of Congressional shortsightedness which the writer has discovered occurred in a hearing before the Senate subcommittee on appropriations in 1933. The official transcript reads as follows:

MR. FLINT [Chief of the Washington office, The Panama Canal]: There is just one question that perhaps ought to be elucidated a little the question raised about auditing the accounts of the Panama Railroad Company.

SENATOR MCKELLAR: I hope you are not going to object to that. You have a wonderful enterprise there. Apparently it is making money, and it is one of the few Government institutions that are making money. Surely you gentlemen ought not to object to an outside concern examining your accounts. I hope you will not.

MR. FLINT: There would be no objection to examining the accounts and making reports to Congress; but he should not have jurisdiction in controlling the business in any way like he would with Governmentoperated funds. You see, these funds are not appropriated to the railroad by Congress.

SENATOR MCKELLAR: I am distressed to hear you interpose an objection to the Comptroller General auditing your accounts.

MR. FLINT: And, being a corporation, it would be....

SENATOR MCKELLAR: No, sir; you are not a corporation. You are part of the Government; and the sooner you get that in mind, I think, the better it will be. You do not own that stock. The Government owns it. MR. FLINT: It has to handle its business as a corporation would; and Government checks on purchases, and things like that, ought not to operate; and the comptroller ought not to have jurisdiction to prescribe the methods of expenditure, or anything like that.

SENATOR MCKELLAR: I am deeply disappointed at the attitude you take about it.

MR. FLINT: I should like to say that there is no objection to his going into the accounts and making report to Congress; but to have jurisdiction like he does over Government departments I think would be a clog on the operations of the railroad.

SENATOR COPELAND: It would be legislation, anyhow; would it not Senator McKellar? You could not put it on this bill?

MR. FLINT: The point is, there is no objection to having the accounts audited. The accounts are open; but if the Comptroller General had the same jurisdiction as he has over a Government department, I think that would clog the operations of the corporation.

SENATOR REED: We can consider that in executive session.

MR. ROSSBOTTOM [Vice-President of the Panama Railroad Company]: If he had to approve every voucher, every payment we made on demurrage, every demurrage bill, and things of that kind, it would make a very serious situation.³

Such disregard for the essentials of government-owned corporations bodes ill for the future, unless some future enlightenment can take place.

RAILROAD BOARD OF DIRECTORS

Throughout the period since government ownership began in 1904, the Panama Railroad Company has had a Board of Directors which really functions. This is one of the best reasons why Congress and the Controller-General should stay off the back of the government-owned corporation. In effect, Congress delegates its responsibility for the routine control of the government-operated service to a small group of men who by experience and interest are qualified to guide the corporation. These men are trustees for the government.

The Board of Directors of the Panama Railroad Company

^{*} Hearings before the Subcommittee of the Committee on Appropriations (War Department Appropriation Bill for 1934, H.R. 14199; U.S. Senate, 72d Cong., 2d sess.), pp. 99-100.

consists of thirteen members, this having been the number for many years. The headquarters of the corporation is at 24 State Street, New York City, where the Vice-President is located and where the shipping and purchasing (for the commissary and ships) activities are carried on. Whenever vacancies occur in the Board of Directors, appointments are made by the Secretary of War upon receiving suggestions from the Governor (who is also President of the Railroad). Before the appointment is actually made, the selection is formally approved by the Board of Directors.

Great perspicacity has been shown in choosing new members, with the result that at all times men of experience, judgment, and courage have served on the Board. Several cases have arisen in the last three decades where the Directors were urged, or were even instructed, to take some action which they considered injurious to the corporation's interests; when such crises have arisen, members have stated flatly that they would resign rather than acquiesce. One of the most recent examples of such dogged independence was the Board's refusal to carry out Secretary Hurley's "instructions" relative to the discontinuance of shipping connections with Haiti ten days before the Hoover administration went out of office.

One reason that the Board of Directors has really functioned, has stood its ground when it has been convinced that it was right, is that former governors of The Panama Canal have stayed on as members of the Board. They have learned to fight. At the present time the membership of the Board includes Jay J. Morrow and M. L. Walker, both of them former governors. On the Board at present there are also three or four permanent officials, namely, the Vice-President, the General Counsel, the Auditor of The Panama Canal, and the head of the Washington office of The Panama Canal. The Secretary of War, the Governor of The Panama Canal, the Engineer of Maintenance, and the War Department official detailed to Canal activities are also members of the Board at the present time. This means that only three or four of the remaining members can be classified as lay members, as contrasted with those who hold or have held an official position in either the Railroad or the Canal.

The failure of the Panama Railroad Company to utilize the services of men from other walks of life, who might bring to the conduct of the business fresh points of view, is a criticism which may properly be brought against the corporation. The business could not possibly be more honestly conducted. The Directors who are drawn from the Army and the Zone services represent as fine a type of public service philosophy as the United States has ever produced. The only danger is that of inbreeding, getting into a rut. On the other hand, it has proved difficult to secure highly qualified persons from the outside.

Directors receive no financial compensation, only expenses. The practice of giving remuneration was discontinued many years ago, the argument being that a service to the government required no compensation. The writer does not hesitate to express his disapproval of this policy. Experience with gratuitous services rendered by citizens to government services of a comparable nature indicates that remuneration is preferable. If this is true of (say) city councilmen's positions, the argument is certainly far more convincing in the case of a governmentowned business corporation. The British, who have done more than we have to develop the public corporation, invariably compensate their directors ("trustees" they are usually called), and in some cases handsomely. To be sure, a prospective appointee who would be influenced unduly by the prospect of compensation is patently not the man to appoint; but a good workman is worthy of his hire, and annual Directors' fees are just as surely an appropriate charge against the revenues of the Panama Railroad Company as they are in the case of the New York Central or the United States Steel Corporation.

CORPORATION AS AN ADJUNCT

Another point of possible criticism relative to the overhead control of the Panama Railroad Company is that the member-

ship of the Board of Directors is overweighted in the direction of Canal representation. This is a deliberate policy which has been in effect ever since the United States government came into control. In an Executive Order of May 9, 1904, President Roosevelt laid down the following policy:

By virtue of the ownership by the United States of about sixty-nine seventieths of the shares of the capital stock of the Panama Railroad the general policy of the managers of said road will be controlled by the United States. As soon as practicable I desire that all the members of the Isthmian Canal Commission be elected to the board of directors of the road, and that the policy of the road be completely harmonized with the policy of the Government of making it an adjunct to the construction of the canal, at the same time fulfilling the purpose for which it was constructed as a route of commercial movement across the Isthmus of Panama.

Since that time the Railroad has increasingly been subordinated to the interests of the Canal, both financially and administratively. Beginning with the theory that the Panama Railroad Company was merely an adjunct of the Canal, a constant transference of administrative positions from the Railroad to the Canal has taken place, with the result that the corporation has lost a large part of its administrative autonomy and, in the eyes of the Canal-Zoners at least, its identity. At times when funds have not been available for purposes desired by the Canal, the reaction has been, "Let the rich Panama Railroad pay for it." The corporate character of the Railroad, with all its financial, administrative, and legal implications, is almost completely lost sight of in the Zone, except when the liberal provisions of the corporation's charter can be used by the Canal-Railroad establishment.

In a historical account of the Panama Railroad which was written in the Canal Zone some years ago, and which later became the basis of a publication in England,⁴ there appears this analysis, which is thought to be a typical point of view: "The management of the road," stated this observer, "has been more

4 R. W. A. Salter, "The Panama Railroad," Railway Magazine, XLI (1917), 77-84. closely merged with that of the Canal, until its individuality has been almost lost. The corporate entity of the company has been preserved, however, and serves as a convenience in the transaction of business which might be hampered by governmental restrictions if carried on by The Panama Canal as such." This writer's reference to the word "individuality" is very significant. A government-owned corporation, if it is to become a living, progressive organization, must have an individuality, a distinct corporate existence of its own. It must stand on its own feet. The corporation's metes and bounds-finances and administrative control-must be precise. Otherwise there can be no real responsibility and no unified direction from the top. The employees should develop a loyalty to the corporation and to its interests-the best assurance of hard, conscientious endeavor. A distinct corporate character is one of the foundation stones of such a lasting lovalty.

We have stated only one side of the case—the desiderata of business management and of government-owned corporations generally. But while everything which has been said concerning the ordinary government-owned corporation may be granted, we must take into account the peculiar circumstances existing on the Isthmus. When this is done, we find that the present set-up is natural and necessary, even though not ideal. The fundamentals of the subject may be stated as follows: The important Isthmian function is the maintenance and operation of the Panama Canal. The complete separation of the functions of the Railroad from those of the Canal would probably improve the Railroad and would probably make of it a better experiment in government-owned corporations, but the larger interests of the United States on the Isthmus would be served less efficiently. The railroad and all its auxiliaries are adjuncts of the canal; they have no primary independent reason for existence otherwise. On the Isthmus, distances are small, and hence the functions and physical facilities of the Panama Railroad Company have been closely interwoven, geographically and otherwise, with those of The Panama Canal. Overhead expense has probably been reduced as a result, and greater efficiency has been secured by combining a unit of one organization under the same supervision as a unit of the other, when the two units have had a similar purpose or character. This mingling of units of the Canal and Railroad inevitably led to a unified administrative organization on the Isthmus. Theoretically, the results may be somewhat regrettable; practically, there is no other alternative except complete amalgamation of the Canal and the Railroad under a new charter.

SECRETARY OF WAR'S RESPONSIBILITIES

The Secretary of War is the chief to whom both the Canal and the Railroad turn for common direction. The Secretary is the connecting link between Congress and the President, on the one hand, and the Panama Railroad Company and The Panama Canal, on the other. Both Congress and the President are relieved of a great deal of responsibility because of the control over policy exercised by the Secretary of War. The Governor of the Panama Canal is appointed by the President and confirmed by the Senate, but the recommendation comes from the Secretary of War, and thereafter all questions involving administrative policy clear through the Secretary of War, even though they may interest the President directly. The Secretary of War is a Director of the Panama Railroad Company and votes the stock of the United States. Then, too, he controls the Army establishments located on the Isthmus. In view of this fact it is surprising that there has not been more cooperation at times between the civil and the military jurisdictions in the Zone.

The Secretary of War has real authority in the affairs of the Canal and the Railroad; his is no nominal power. His practical control over the Canal administration is clearly greater than that which he exercises over the Railroad, owing to the corporate character of the latter and the fact that its Board of Directors acts as a buffer in some cases. The Secretary's authority over the corporation should not be absolute and unlimited; other members of the corporation are individually responsible for the financial health of the company. His ultimate power to guide the Governor, and through him The Panama Canal, is, and should be, complete—so long as he has judgment enough not to interfere with detailed administration. In actual practice the Secretary puts great reliance upon the advice and judgment of the Governor—as he should. The Secretary of War has authority to bring about reorganizations, to change accounting procedures, and to alter fundamental divisions of responsibility and policies of management. However, it has been held that the transfer of a Canal property to the Railroad requires an Executive Order issued by the President. The Secretary's authority is very extensive and applies to matters which have not been expressly provided for in legislation.

The Secretary of War is a busy man with a multiplicity of duties. He is therefore aided by a Staff Assistant in his own office who acts in an advisory capacity. These advisory functions are concerned with the supervision of the external relationships and the internal management of the Panama Canal and its adjuncts. In addition, the Staff Assistant supplies needed information; unhampered by duties of administration or execution, he studies and recommends to the Secretary the necessity for concentrated attention upon those problems which require the attention of the latter.

WASHINGTON OFFICE OF THE PANAMA CANAL

The Washington office was established in 1904 for the convenient execution of the Canal's business. The present establishment was created by an Executive Order of March 2, 1914, which provided that "the Washington office of The Panama Canal shall be the headquarters and the principal office of the Purchasing Department of The Panama Canal." The office is located in the Munitions Building, some distance from the War Department. It handles all purchasing, administrative, and appointment matters relating to The Panama Canal. The Chief of Office reports to the Governor of The Panama Canal on the Isthmus and to the Secretary of War in Washington; in practice he is almost exclusively the agent of the Governor. The Panama Canal is not a part of the War Department, but is, by direction of the President, under the personal supervision of the Secretary of War. It is important to keep this distinction clearly in mind.

The Chief of Office keeps close watch of all legislation affecting The Panama Canal or the Panama Railroad Company. The Governor considers him his agent in the United States and transacts most of his business with Washington through the Chief of Office as intermediary. When the proposal has been made that all of the duties affecting The Panama Canal should be consolidated in one office under the immediate jurisdiction of the Secretary of War, the move has been objected to very strongly by the Governor. The disadvantage in the present set-up is that the sources of information are complicated by the existence of two channels in Washington, both dealing with Panama Canal business; and hence administrative guidance of Panama Canal affairs is probably more difficult than it would be under a consolidated plan. On the other hand, the files of The Panama Canal office in Washington are always open to the Secretary's advisers, and the Chief of Office is always glad to supply data which are needed or desired. Moreover, the Washington office is primarily a routine agency; it transacts a great deal of detailed business which could not be transferred conveniently to the immediate jurisdiction of the Secretary of War. Purchasing operations alone amount to \$3,500,000-\$6,000,000 a year. If all purchasing activities were turned over to the Panama Railroad Company (a possibility which will be discussed), then it might be desirable to unify the Canal's business in Washington and to draw it more closely under the Secretary's supervision. On the other hand, the Washington office of the Canal is a symbol of the semi-independent existence of The Panama Canal and of the Governor's undivided authority. It gives The Panama Canal a locus standi in Washington comparable to that of a government-owned corporation. If its

affairs were to be too meticulously ordered by the Secretary of War, the net result would unquestionably be decreased administrative efficiency. A strong man in the Governor's chair will refuse to be a marionette.

THE FUNCTIONS OF THE GOVERNOR

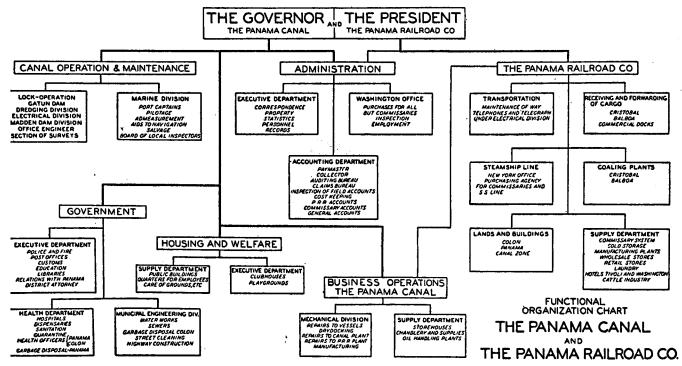
The Governor has real power. He is the ceremonial head of the Canal Zone, the executive of the civil government, and the responsible chief of operations of both the Canal and the Railroad on the Isthmus. The Governor of the Canal Zone, as has been said, also fills the office of President of the Panama Railroad Company. The functional analysis of the Governor's powers is disclosed by Chart I. The Governor is in reality the general manager of the Canal-Railroad establishment; he is the directing head of the utility services.

The 1921 Commission proposed that the Engineer of Maintenance (or a man from civil life) should be made the General Manager of a large part of the Canal-Railroad functions in order to relieve the Governor of some of his load.⁵ The Governor did need relief and has adopted the idea to the extent of relieving the Engineer of Maintenance of most of his routine duties so that he could be the Governor's assistant. But the Governor is still weighted down by a mass of detail. All matters of any importance (and some matters of little moment) still pass over the Governor's desk for action. Canal Zone administration is highly concentrated, theoretically at least.

The office of Governor depends very largely upon the personality and the desires of the person occupying it. His duties are not outlined in detail by an act of Congress. The Panama Canal Act of 1912 contains the broad provision that the President is authorized to operate the Panama Canal and to govern the Canal Zone "through a governor of The Panama Canal," who is to "have official control and jurisdiction over the Canal Zone and shall perform all duties in connection with the civil

* Report: Special Panama Canal Commission (Washington: U.S. Government Printing Office, 1922), pp. 15, 56.





IIIII I

government of the Canal Zone." Further, by Executive Order dated January 27, 1914, it is provided that the organization for the operation of the canal and for the government of the Canal Zone shall consist of a number of enumerated departments and that all of them are "to be under the direction of the Governor, subject to the supervision of the Secretary of War." On the other hand, since the canal was built certain general and special policies relating to administration have been developed, and every Governor has followed them in a large part of the management and in many of his decisions and actions. As a matter of fact, principle and tradition play a large part in administrative services headed by executives chosen from the Corps of Engineers.

The Governor holds office for four years, and thereafter he, an Army engineer, is transferred to some other post. Every Governor to date has come to the position with four years of practical experience in the Zone as Engineer of Maintenance. The present Engineer of Maintenance was also Assistant Engineer of Maintenance, giving him seven years of experience prior to his eligibility for the Governorship. Governors of The Panama Canal have had the immense advantage of going into office knowing a great deal of what it is all about.

The Governor must perform a variety of functions. Part of his time is consumed by social obligations. Sooner or later, it is said, every person of importance passes through the Canal Zone, and this is usually the occasion of a greeting or a reception by the Governor. A considerable portion of the Governor's attention must be devoted to the subtleties of attempting to carry on friendly relations with Panama. Then, again, the Governor must give his attention to the civil government of the Canal Zone. This duty entails burdens which are comparable to those of the mayor of a fair-sized municipality. In recent years expenditures for civil departments have amounted to around \$1,000,000 per annum.⁶ This burden has largely devolved upon the Executive Secretary, who administers most of

⁶ Annual Report: Governor of The Panama Canal (1933), pp. 94-119.

the local services, and the Assistant Engineer of Maintenance, who is responsible for the Municipal Engineering Division.

The three responsibilities which have been mentioned, social. extramural (including relations with Washington as well as with Panama), and civil government, constitute a considerable burden. In addition, the Governor assumes the active management of the Canal-Railroad establishment. The historical explanation of the Governor's attention to detail is easily found. Construction tasks, the purely engineering functions, were originally the all-important features of Canal Zone administration. That is why an Army engineer first became Governor. Afterward there was danger of fresh slides in Culebra (now Gaillard) Cut, a great deal of dredging was necessary, and new construction was taking place. A first-class engineering job is in progress at Madden Dam at the present time, for that matter. But it is important that we should not fail to see that the technical side, the engineering function, has grown constantly less in the sum total of Canal Zone management. Today the principal consideration is what may be called "operating" engineering as distinguished from "construction" engineering.

FUTURE OF GOVERNOR'S OFFICE

The fundamental requirement of the Governor nowadays is that he should be an administrator—a person of comprehension, co-ordinating genius, tact, leadership, personality, initiative. In some quarters it has been asked whether the governorship requires an engineer at all. Why should not the Secretary of War recommend an officer with a flair for administration, even though he be in the infantry or the coast artillery? The writer sees the theoretical support of this argument but is convinced that the present system of choosing and promoting Army engineers is the best rule and that it should not be interfered with. The Corps of Engineers of the War Department is an exceptionally accomplished group of men. They are thoroughly trained before going into the service. In river and harbor work they get a great deal of widely varied experience. As a class they are aware of the importance of the art and science of administration—as is the Army generally, to a more marked extent than any other service in the United States government. Moreover, the engineers know more about the management of public utility undertakings than does any other group in the War Department. Since about three-fourths of Canal administration is concerned with public utilities, the War Department engineer is clearly the person for the job.

The future success of the existing system of recruitment and selection for the governorship would seem to depend upon whether or not a man of native ability can be given sufficient opportunity to develop the qualities which he will need as Governor before going into the office himself. These qualities, such as the ability to co-ordinate administrative services, success in delegating responsibilities, effectiveness in dealing with the public and with political agencies, are not necessarily acquired in the life of the average practicing engineer. But officers in the Corps of Engineers do have exceptional opportunities in this regard, as an examination of the life-histories of the present and former Canal Zone executives clearly shows. Outside of their military experience officers of the Corps of Engineers by the time they reach the age of the Governor generally have had many years in responsible charge of administrations, large and small, performing a variety of tasks, meeting the business and political public, and acquiring a general executive and administrative viewpoint and experience. Moreover, it is believed that the process of apprenticeship developed in the Canal Zone supplements this opportunity very satisfactorily. When the Governor is away, as he must be at least twice a year when he appears before a Congressional committee, the Engineer of Maintenance becomes Acting Governor, and many of his detailed duties are shifted to the Assistant Engineer of Maintenance.

The Special Panama Canal Commission of 1921, as we have stated previously, recommended that a high-powered business executive should be imported to run the Canal-Railroad establishment as General Manager. Such a plan seems neither necessary nor desirable. The type of men who have guided the Canal could command in private life the \$25,000 which would probably be paid to the business executive. Besides, they have been imbued with the public service philosophy, and they have attached a great deal of weight to the interests of employees living in the Canal Zone. These things could hardly be expected of the hard-boiled business man who, if the recommendation of the 1921 Commission were put into effect, would be sent to the Zone to squeeze out every dollar of profit he could get.

The idea may have occurred to the reader that, even though the importation of a General Manager from the outside appears to be inadvisable, the Engineer of Maintenance should be definitely given the responsibility for general management. Such is the relationship which usually exists between the president and the general manager of a private corporation. It may be argued that the Governor should confine his attention to general matters of policy arising in the operating services and leave the supervision and control of the economic services to the Engineer of Maintenance, who would fulfil the functions of a general manager. In further support of this position it may be said that the Governor should be freed from managerial duties in order that he may devote more attention to relations with Panama, to dealings with Washington, to matters of civil government, and to obligations of an official character. In theory this sounds like a wise division of functions.

Because of the peculiar circumstances of Isthmian administration, however, the creation of a separate office of General Manager—apart from the Governor's office—appears to be impossible and undesirable. If integral parts of the Isthmian organizations and functions were turned over to a real General Manager (i.e., one who had independent control over the operating services), it would lead to duplication, lack of co-ordination, lost motion, and extra effort. The Governor alone is responsible to the government of the United States. The higher decisions, management, and responsibility required of a real general manager must always attach, under the present setup, to the Governor-President, or otherwise he would become merely a figurehead.

What is possible, and what may be recommended, is that the Engineer of Maintenance, as the Governor's assistant, should be intrusted with the principal part of the detailed supervision and control over the operating services. The best solution of the problem appears to be in the general sharing of executive authority by the Governor and the Engineer of Maintenance; in practice the subdivision of duties will depend inevitably upon the individual abilities, methods, and preferences of the two men. As a rule, the Engineer of Maintenance needs his first year of duty in order to grasp the local detail and background required in the efficient operating direction of affairs. The fact that either the Engineer of Maintenance or the Governor is absent one-third of the year is also a factor supporting an elastic division of responsibility. The existing relationship is just such an elastic one, and, with the further extension of the policy of devolving a greater part of the managerial detail upon the Engineer of Maintenance, it is thought that the problem of overhead control is working itself out satisfactorily. In order to emphasize the executive nature of the Engineer of Maintenance's function, and in order to provide a title of office which is more appropriate to his duties today, it is suggested that the designation, Engineer of Maintenance, be changed to Lieutenant-Governor. This title is appropriate inasmuch as the Governor's Assistant has invariably succeeded him as Governor. and should continue to do so.

OVERHEAD CONTROL OF ADMINISTRATION

The executive control over the Panama Railroad is bifurcated; operations in New York are carried on by the Vice-President whereas administration on the Isthmus is directed by the Governor and the Engineer of Maintenance—President and Second Vice-President, respectively, of the corporation.

The Vice-President of the Panama Railroad Company, a civilian, is appointed by the Board of Directors and holds office during an unlimited tenure. The present incumbent has been with the company for forty-six years, having begun his career as a messenger.

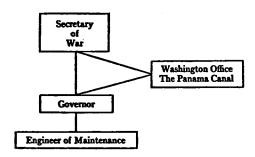
The Vice-President performs most of the duties of a general manager in a private corporation. The Board of Directors looks to him as the chief executive of the corporation and expects him to see to it that the corporation earns a satisfactory profit each year and that its affairs are handled efficiently. Yet the Isthmian services are not under his immediate control but are solely subject to the direction of the Governor-President. This is one of the anomalous features of the existing organization and relationship. The Panama Railroad Company does not have an autonomous administrative organization or unified executive direction.

There is a General Manager of the Railroad, located on the Isthmus, but his jurisdiction applies only to part of the services owned by the Railroad, and he reports to the Governor's office just as does the head of any other department. True, the General Manager is charged with the general responsibility of looking out for all of the Railroad's interests, and he carries on frequent correspondence with the Vice-President in New York; nevertheless his independence and real power are very limited. He is appointed by the Governor rather than by the Board of Directors of the Railroad, and his jurisdiction is confined to railroad operation, steamship interests on the Isthmus, receiving and forwarding, wharves and piers, the coaling station, the baggage transfer, and the Colon stables. The General Manager does not even handle all of the work which customarily falls within the operating division of a railroad; roundhouses and car inspection are under the Mechanical Division, and the electric-signal system is under the Electrical Division of the Canal. In addition, several of the services owned by the Railroad are managed by Panama Canal staff; these include the commissaries, the telephone system and elec-

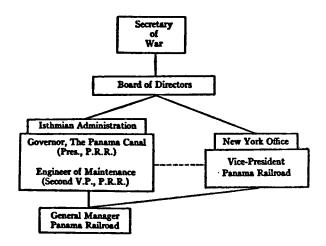
CHART II

OVERHEAD CONTROL AND INTERRELATIONS, THE PAMANA CANAL AND PANAMA RAILROAD COMPANY

e) The Panama Canal



b) Panama Railroad Company



tric clocks, the cattle industry, the dairy farm, and the plantations. Finally, as will be explained, all of the Railroad's "staff" needs on the Isthmus—including accounting, the health service, the personnel bureau, the supply department, the correspondence division—are supplied by departments of The Panama Canal, and the Railroad is charged a pro rata share of the overhead.

In the New York office, on the other hand, all of these functions are controlled by the Vice-President. Hence, the Panama Railroad Company can be compared to an animal having a head and a body; the head (New York office) is directed from the brain (Vice-President), but the body is controlled from another part of the body, namely the Governor and the Engineer of Maintenance of The Panama Canal (President and Second Vice-President of the company) residing on the Isthmus. Chart II may help to explain the situation.

Not only is the relationship between the Panama Railroad Company and The Panama Canal complex, but the organization of the administrative services in the Canal Zone is also complicated. The number of independent units would seem to militate against effective integration and control by the Governor and the Engineer of Maintenance. The present administrative organization is fundamentally a historical accidentthe result of a gradual process of accretion. Very few alterations of organization have been made in the last thirty years, and these have been minor ones. Are changes in administrative reorganization necessary? The problem will be analyzed and an attempted solution will be offered in chapter x, wherein a chart of the existing departmental organization will be found.⁷ The chapters which follow immediately will attempt to bring to focus the principal problems of the operating services and their relationship to overhead organization and general administration.

7 See infra, p. 227.

CHAPTER IV

AVING provided a general background for the study, and having just analyzed some of the problems of organization and control, the central portion of the book will be concerned with the principles and problems of the government-owned Panama Railroad Company and its financial and administrative relationships to The Panama Canal. We shall begin with the original unit of the company's services, the railroad line itself, and analyze the principal difficulties confronting it. Following that, we shall deal with the Railroad Company's steamship line, also one of the earliest parts of the organization and one that, like the railway, is beset by many current and prospective difficulties. Then we shall want to deal with the principal ancillary services, the profitable but much-criticized commissaries, the manufacturing units, and the other sources of the Railroad Company's revenue. Having then obtained a knowledge of the more important utility services, we shall be better prepared to deal with the principal administrative problems growing out of the study. Some of the important ones are the division of financial and administrative responsibility between the Railroad and the Canal, the organization and policies of the financial establishment, problems of personnel management, the organization and methods of the purchasing units, administrative reorganization, and the principles which should control the conduct of the government-owned Panama Railroad corporation.

ECONOMICS OF BAIL TRANSPORT ON THE ISTHMUS

From the standpoint of financial stability the future of the railway line is clearly the most important problem confronting the company today. It represents a fixed-capital investment of \$11,413,571, or one-third of the corporation's total assets.

So long as the railroad maintains its monopoly of land transportation across the Isthmus, there is no question but that it can operate profitably. Of course, during the present depression its business has been severely curtailed, as has been the case with all classes of business throughout the world. Fortunately, during the last two years it has received the benefit of the traffic due to the construction of Madden Dam and has therefore made more profit than would otherwise have been the case in these depression years. However, the fact that the road is still in good earning condition is attested by the fact that in the first six months of the fiscal year 1933 the railroad made a profit of more than \$70,000 exclusive of the Madden Dam freight. Assuming that present conditions will continue, therefore, the future condition of the railroad line seems assured.

In years to come, though, the monopolistic feature of the railway's land transportation across the Isthmus may disappear. If a motor highway is built parallel to the railway line, what will be the effect upon the railway's income? This is a matter to which Canal Zone officials are keenly alive, but they feel that there will be time to meet the situation if and when it arises. It would probably cost between \$2,000,000 and \$3,000,-000 to build a first-class highway across the Isthmus. If an inferior type of road is built, the competition from trucking naturally will be very small. Moreover, from the standpoint of the economics of the problem, it is important to note that in normal times about 57 per cent of the freight business and 52 per cent of the passenger traffic are governmental and can be controlled. Tourists want to see the Panama Canal and will, in all probability, still ride on the railway. Furthermore, factors of safety, security, and dependability will operate in the Isthmus more heavily than in the United States.

But this does not mean that the results of road competition can be ignored. Two things need to be done right away, and they are being taken care of. In the first place, the efficiency of the present railway system must be improved to the fullest exextent; and, second, methods of meeting possible competition should be worked out in advance.

The main line of the Panama railroad from Colon to Panama is less than 48 miles, but it travels through a dense jungle much of the way and across a high fill in Gatun Lake for another considerable distance. The road reaches a summit about halfway across the Isthmus, at which point the elevation is 263 feet. The canal is not far distant from the railroad all of the way, but it is visible less than half of the time. The total length of line maintained by the railroad is 145 miles; Panama Railroad tracks account for 102 miles, while The Panama Canal owns 37 miles and the United States Army 6 miles.

Throughout a large part of its history the Panama Railroad Company was the busiest road in the world for its size. This observation was particularly true, of course, during canalconstruction days, but during the entire period prior to the opening of the canal the railroad did an enormous business. Its principal source of revenue was the trans-shipment of freight across the Isthmus; cargoes would be deposited on one side of the Isthmus by ships and picked up on the other side by connecting vessels. By developing its harbor facilities and by speeding up its hauls, the company developed a highly remunerative business in freight and passengers destined for the west coast of South America and the two coasts of the United States.

With the opening of the Panama Canal to commerce, the Railroad Company's transshipping business melted away. It might appear at first thought that there would still be a certain amount of transshipping; there are many ships that do not transit the canal but, instead, put in at Cristobal and discharge and receive cargo bound for or coming from west-coast ports. The railway does not get this business, however, because the small coasting vessels that cover the Central and South American ports find it possible to pass through the canal and put in at Cristobal, and then again transit the canal in order to get back to the regular routes, at a rate less than that which the railway charges. This has become a lucrative business for small

58 GOVERNMENT ENTERPRISES IN CANAL ZONE

ships because canal tolls are computed on the basis of cubical measure.

The main business of the road is the hauling of maintenance supplies for the Canal Zone. The bulk of these shipments originate in New York, while most of the operating services in the Zone are located on the Pacific side. Hence, it is necessary to haul a large proportion of all shipments destined for Zone use or consumption over the entire distance of the railroad.

The Panama railroad is the only connecting link overland between Colon and Panama City, the two largest cities in the Republic of Panama. Hence, the line is used by Panamanians to a considerable extent, both for passenger travel and for freight. The local traffic supplied by Panama also furnishes a certain amount of business for the railroad. On the shores of Gatun Lake, forming a boundary between Panama and the Canal Zone, several native villages have grown up. In addition to these villages and their surrounding territory there are numerous small holdings of land along the line of the railroad; these have been leased to native and other Canal laborers largely as an offset to unemployment. A large proportion of the local traffic is lost, however, because it is now handled principally by a combination of truck and launch.

Tourist travel is another revenue-producer for the railfoad. During the winter months, especially, many ships dock at Cristobal and do not pass through the canal. Sightseers travel across the Isthmus to the Pacific side, and usually they make the round trip by rail, although a few do return by airplane. These trips are usually handled by tourist agencies, which provide an opportunity to see the locks in operation, to shop in Panama, and to patronize the Railroad Company's hotels. The Panama Railroad Company co-operates in every way with these tourist agencies, employing special trains when the number of passengers is sufficient and also providing motor-driven cars for smaller parties.

The railroad also performs an essential service in the transportation of Canal employees who are stationed at various points along the canal and are engaged in maintenance and operation. Parties of workmen can be moved from one part of the Isthmus to another, thereby reducing the overhead expense of maintaining permanent settlements in the interior. A large proportion of the passengers on the morning and evening trains operated by the Panama Railroad Company are employees of either the Canal or the Railroad. The road is also indispensable to the Army in moving men and supplies between the terminal points and the eight permanent posts situated at different places on the Isthmus.

RATE POLICIES

The railway's place in the Isthmian organization has become analogous to that occupied by a railway line operated by a large steel company; it is primarily a local carrier used as a link in a larger industrial process, but it still retains something of the character of a public carrier. This situation creates a complex problem, particularly when the effort is made to evaluate rate policies. A common carrier in the United States is subject to the regulations of the Interstate Commerce Commission and must conform to national standards relative to rate bases and charging practices; the Panama railway is not controlled in this manner. The factor of competition does not operate. The conditions of Isthmian transportation are so different that comparisons with railway practices in the United States are usually hazardous or unfair. Hence, it is difficult to choose satisfactory criteria for judging the rate policies of the Panama railway, and there is bound to be room for a great deal of unavoidable difference of opinion.

It will be generally agreed that the Isthmian railway is a common carrier rather than merely a local service existing for the purposes of the canal and the Zone. About one-half of its business comes from sources outside of the Canal Zone and its enterprises. Hence, in considering rate bases and charging practices, we must take the interests of traders and the traveling public into consideration. This is where we begin to run

into difficulties. Is it justifiable for the Canal-Railroad establishment to charge itself less for freight and passenger transportation than it charges others? If so, what is the justification for establishing rate differentials? So long as the railway line makes profits on its existing rate base, is there any ground for criticism of its rate policies? Or can we say, when the railroad is operated economically and when no service is rendered below cost, that the various rates should secure the maximum business from each rate and produce the net profit desired? This is said to be the present policy of the administration. But its difficulties are instantly obvious. How do we know when the railway is operated economically; can the cost of an individual service be accurately measured in practice; and how can we tell when the maximum business is being secured from each rate? These suggested tests hardly provide a definite principle upon which to build a rate base.

The Panama railroad charges full commercial rates on the freight and passenger business of outsiders and on a small proportion of its own freight; on the rest of its own transportation and on Panamanian agriculture and Army and Navy business it allows substantial discounts. It may be seen, therefore, that tariff rates are charged on only 30 or 40 per cent of the railway's business. The first-class passenger rate is 5 cents per mile, or \$2.40 for the forty-eight-mile trip across the Isthmus; the second-class fare is \$1.20. Freight rates have been divided into six schedules, following the general classification worked out by the Interstate Commerce Commission; the sixth class pays 20 cents a hundred and the first class 50 cents a hundred.

It will be observed that these rates are higher than corresponding ones in the United States. On the other hand, the tariffs compare favorably with those of other Central American lines. In 1933, for example, the average revenue for passenger transportation on the Panama railroad was 2.37 cents per mile, whereas the railroads in Ecuador, Nicaragua, and Venezuela charged from 4.34 to 4.97 cents per mile. Comparisons of this kind are interesting, but they do not prove very much. We should expect the Panama railroad line to be conducted more efficiently than other Central American roads (the Isthmus gets more traffic to begin with), while comparisons with railways of the United States are usually unreliable because of natural differences in density of traffic, in original construction costs, and in maintenance and operating expenses. Moreover, is it not natural and justifiable that the Panama railway line should, to a certain extent, take advantage of its monopoly?

Studies which have been made of railroads which have encountered financial difficulties sometimes reveal that the railroads' plight is attributable to a policy of granting free passes and discounts of various kinds. The Panama railway does all of these things but has managed to make money. However, it may be asked whether full tariff rates are not as high as they are, in part at least, because of the existence of passes and discounts. Would the Interstate Commerce Commission permit the present policy of giving passes and of allowing discounts? It is recommended that the present rate structure and financial practice be carefully re-examined with these ideas in mind.

One feature of the present system is seemingly unavoidable. A treaty provision requires the Panama Railroad Company to supply officials of Panama with free passes on the railway. Cabinet officials and police officers are the principal beneficiaries of this concession. A stipulated number of blank passes is issued to the government of Panama, and it in turn distributes them. Difficulties have naturally been experienced with the transference and sale of passes. The total number of passes granted to Panama is now over twenty thousand each year.

Panamanian agriculture enjoys the benefit of a treaty provision which states that native produce shall pay only 50 per cent of the full rate on the Panama railroad. These concessions are part of the original franchise price, of course; but the system is thoroughly bad from the standpoint of business management. This conclusion is confirmed by experience elsewhere

62 GOVERNMENT ENTERPRISES IN CANAL ZONE

with such concessionary agreements. It is recommended that a more business-like form of payment be substituted for the existing arrangement as soon as the two countries can agree to do so.

Up until ten years ago the Army made an annual lump-sum payment to the Railroad Company for expenses involved in transporting troops and supplies, but this payment has since been discontinued. The value of such service at the government rate will approximate \$20,000 per year. In defense of this policy it is said that the Army has lacked funds for the purpose, and that even if payment were made it would merely mean transferring money from one pocket of the government into another. The latter argument will be examined in just a moment.

The Panama Canal pays full commercial rates on only a small percentage of the freight shipped on its account. Other payments are in the form of lump sums. For example, the Commissary Division pays the Panama Railroad Company a lump sum of \$10,000 a month for overland freight services, irrespective of the total number of tons transported. The amount has not been reviewed or adjusted since 1925. When the figure was first fixed, the sum arrived at probably represented the true value of the service, but it unquestionably does not today. The Canal Zone administration clearly needs to have another adjustment made and should not permit so much time to elapse before another lump-sum computation is ordered.

The Panama Canal, as a whole, is given a rate that is lower for important classes of freight than the full commercial tariff. The Army and Navy are also given these reduced rates. The principal discount to the Canal is on maximum freight-car loadings of \$100. Inasmuch as most of the Canal's freight requirements are for construction and engineering purposes, this is the schedule that makes a really important difference. The Canal's freight payments to the Panama Railroad Company have fluctuated from about \$12,000 a month to as high as \$40,000 a month during the construction of Madden Dam. The same sort of situation exists so far as passenger traffic is concerned. The Panama Canal pays the company a lump sum of \$10,000 a month for all of the passenger service required of the railroad, whereas it would have paid \$12,000-\$17,000 a month in recent years if the regular tariff had operated. The Canal also issues unlimited passes to persons engaged on official business, and this privilege is likewise accorded to the higher officers of the Army and Navy. Reduced rates are also given to the ordinary personnel of The Panama Canal, the Panama Railroad, and the Army and Navy, even when not engaged on official business. For the trip from Panama to Colon the first-class employee rate is \$1.45 instead of \$2.40, but no reduction is made in the second-class rate.

The facts of the existing situation have been gone into with some detail in order to bring out more clearly the fundamental policies involved. Three major issues arise, namely, the justifiability of discounts, the use of lump-sum payments, and the policy of not charging other government departments on the ground that it is merely a bookkeeping transaction.

Should the policy of granting discounts to the Isthmian services be continued? From the standpoint of business practice, this policy probably should not be permitted, and if the Interstate Commerce Commission had jurisdiction, it clearly would not be allowed.¹ The practice is discriminatory in that it involves the payment of higher rates by other users of the service in order to meet the total financial requirements of the company. On the other hand, it is argued that the discounts represent service at cost and, also, that this policy is justified in the case of the railroad because it is not called upon to pay taxes and certain other items of commercial expense. A policy

¹ Under the terms of the Interstate Commerce Act, as administered by the Interstate Commerce Commission, a common carrier railroad owned by an industry must charge the same rates to the parent-industry as to all other shippers served by that common carrier (Interstate Commerce Act of 1887, 24 U.S. Stat. 379, §§ 2 and 3, as amended by the Hepburn Act of 1906, 34 U.S. Stat. 584; I. L. Sharfman, *The Interstate Commerce Commission* [New York, 1931], I, 21, 42; II, 152-53).

64 GOVERNMENT ENTERPRISÉS IN CANAL ZONE

of cost plus a slight differential might be justified if the difference between the reduced rate and the full commercial rate were very small.

Payments in the form of lump-sum remittances are not necessarily objectionable. In contrast with measured payments, they save a great deal of bookkeeping, time, effort, and expense. Criticism is justified, however, when periodic alterations are not made, thereby causing a discrepancy between the charged value of the service and the payment made.

The remaining issue is a basic one, and we shall run up against it many times. Why charge all a service is worth, or why charge at all, when the government of the United States assumes the financial burdens and pockets all of the profits? Why should one service bill another for work done when the transaction is merely a bookkeeping one? The answer is that an accurate financial picture is the best method of judging the efficiency and success of an economic service; and when the enterprise happens to be a corporation which supposedly operates on the same business principles as private enterprises, the necessity of strict accounting is even greater. The policy can be carried to an extreme, but as a rule it is applied too infrequently rather than too meticulously.

The financial showing of the railroad has been satisfactory, the total net revenues for the thirty-year period 1903-33amounting to \$16,504,194. The net revenues from railroad operation fell from \$705,330 in 1903 to \$123,924 in 1933, the high-water mark of \$1,453,803 having been reached in 1912. In only one fiscal year, 1921, was there a deficit. From 1908 to 1914, inclusive, net revenues of over \$1,000,000 were earned each year. As might be expected, there has been a downward tendency in recent years.² But on the whole there is no ques-

² The net revenues from railway operations since 1922 are as follows:

1922\$165,632	1928\$329,768
1923 160,883	192 <u>9</u> 338,668
1924 76,698	1930 302,355
1925 182,068	1931 157,052
1926 130,811	1932 56,588
1927 331,910	1933 123,924

tion that, in comparison with most other railways, this is a very satisfactory financial record. In connection with the future financial prospects of the railway, however, two points need to be noted. The first one is that for many years the railroad proper has earned far less than the average earnings of the corporation as a whole. The second important observation is that the railway's net revenues have been declining rapidly and that in all likelihood the railway's sources of income will be curtailed in the future. The Madden Dam business will come to an end; competition by road seems likely; an airplane line operating across the Isthmus has already cut into the railroad's passenger revenue. Will there come a time when other services will have to make up deficiencies resulting from railroad operations? One possible means of providing for this contingency is to develop new sources of revenue for the Panama Railroad Company; it is likely that this will be done. But at the same time the efficiency of the railroad organization should be improved as much as possible and the railway's service should be made as attractive as possible in order that the line may compete with rival forms of transportation. Studies along this line have already been initiated by the Engineer of Maintenance. It is the purpose here to examine some of the problems and some of the possible lines of development. with attention focused upon the economic and administrative factors rather than upon the engineering and operating ones.

RAILWAY MANAGEMENT

Administrative changes in the organization of the railroad have undoubtedly improved the efficiency of Isthmian management in recent years. The creation of the office of General Manager of the Panama Railroad Company by Governor Burgess in 1931 was clearly a move in the right direction. Prior to this change the chief operating official of the railway was called Superintendent, and his powers and duties were more limited than are those of the General Manager at present. A former Auditor of The Panama Canal was commonly referred to as the real manager of the road. With his present powers

the General Manager has control over everything pertaining to the management of the railroad proper except roundhouses. car inspection, electric signals, and the issuance of passes, and there appear to be good reasons for not having made these transferences. Creating the position of General Manager has had a beneficial effect in many directions. The morale of the organization has been improved; there is someone who is a real boss and who is looking out for the company's interests. Operating costs have been gradually reduced along certain lines, although further improvements clearly need to be made. Moreover, the General Manager has been alert to see that the railroad is not overcharged by Canal divisions, such as the Mechanical Division, which do work for the road. The most he can accomplish in this direction, however, is to get the Governor's approval of maximum expenditures upon (sav) car repairs and other service charges which lie outside of the General Manager's supervision. Within the last two years, expenditures on rolling-stock repairs, as supplied by the Mechanical Division, have been reduced from \$27,000 to \$15,000 per month.

Very little weight can be attached to comparisons of operating costs and statistics as between the average of railroads in the United States and the Panama railroad. However, some months ago the Canal administration initiated a thorough study and comparison of all phases of the railway's operation. This was done with a view to checking up on present methods and policies for the purpose of developing all possible retrenchment in order to meet present or future reduced traffic. Final conclusions are not yet available in all cases. The following are some of the tentative results which have appeared and some of the questions which are being considered.

The Panama railroad apparently has a superfluity of rolling stock, particularly of engines and of freight cars. For years it has been the policy to "set out" freight cars which were old and which needed extensive repairs. The percentage of engines and freight cars still in use, as compared with the average number

X74.770673.N3

on a mile of road in the United States, is high. This is to be expected because the equipment needs are greater on a short road, especially when (in contrast to the United States) an interchange of rolling stock between lines is impossible. The recent "setting out" of 20 per cent of the Panama railroad's cars is clearly a further step in the right direction. Why keep cars in first-class condition when there is no present use for them and when future needs would appear to require further reductions? The possibility of slides temporarily closing the Panama Canal and hence diverting a heavy burden to the railroad is no longer seriously considered. Also, the necessity of having on hand in case of war a surplus of rolling stock does not justify an extravagant oversupply of railway equipment during peace times. If military necessities require it, a motor highway should be built as a supplementary artery of communication.

A possibility that may have to be considered in the future, and one that probably should be given attention anyway, is the writing-down of the railroad's capital account. Ample precedents for such action may be found in both public and private enterprises, and the railroad has already paid for itself many times over. If gross revenues should steadily decrease while operating expenses remain constant, an adjustment of the railway's capital assets would appear necessary. One factor favoring this course of action is the fact that large sums for deterioration and replacement are carried on the accounts of the railroad proper even when, as in some cases, it is definitely known that the equipment (e.g., freight cars) will never be replaced. In several cases depreciation accounts are completely matured, while in other instances items are overdepreciated on the basis of their original cost (which, ordinarily, was higher than present costs). Irrespective of the justifiability of this procedure as a sound financial practice, it does appear that sums thus accumulated for renewals might be diverted to some other purpose and that this might be a possible means of reducing the capital account.

68 GOVERNMENT ENTERPRISES IN CANAL ZONE

Studies which have been made in the Canal Zone show that the total operating ratio of the Panama railroad is high compared to the average of railroads in the United States. Comparisons may be misleading because of the radically different conditions, but general inferences may be fairly drawn on certain subjects. In 1931 the operating ratio of the Panama railroad was 90.7 per cent, while that for the United States was 77.0 per cent. In that year the fixed capital charge at 3 per cent³ was \$300,517.20. To have met this amount the operating ratio would have had to have been 82.2 per cent.

Comparisons between the Panama Railroad Company and railroads in the United States are even more unfavorable to the former because, in addition to the high operating ratio of the Isthmian road, the Panama railroad's capital investment is very high. The investment per mile of road in 1931 was approximately \$240,000 against about \$80,000 for the United States as a whole. "The roadway," states a recent engineering report prepared in the Canal Zone, "amounts to 72 per cent of the capital investment, and its cost was abnormally high because of its forced location, on account of the canal, through the high, hilly country east of Gaillard Cut and at an unnaturally high level across Gatun Lake. It seems from the preceding that a part of the cost of the roadway could have been charged justifiably against the Panama Canal." However, this statement is somewhat misleading, because, as a matter of fact, when the capital accounts were adjusted in 1921 after the canal was open, this matter was taken into account and a fair division of capital cost was made between The Panama Canal and the Panama Railroad Company. The foregoing statement was not intended to show that an improvement in the ratio of the Panama railway could be made by an adjustment of the capital account but only to show the necessity of a low operating ratio. The operating ratio, of course, could be improved by

³ This percentage is taken as the basis of interest on the investment for all business functions in the Canal Zone.

reducing the operating expenses or by increasing operating revenues.

A comparison between Class I steam railroads in the United States and the Panama railroad reveals that between 1927 and 1933 the average annual maintenance costs were \$937 for the Panama railway line compared with \$831 for the United States roads as a group. The entire difference can probably be accounted for by local peculiarities, such as the lower efficiency of tropical labor, the distance from source of supplies, tropical deterioration, and the use of less machinery on the part of the Isthmian railroad. If it were not for these differences in operating conditions, the maintenance costs on railroads in the United States should be greater because of heavier traffic. In 1931 the gross ton miles (freight and passenger) per mile of road were 5,030,000 for the United States and 2,110,000 for the Panama railroad.

The cost of owning and operating the electric-signal system is somewhat out of line with corresponding costs in the United States, but most of the difference is accounted for by differences in operating and maintenance conditions-conditions caused by the short length of the line and the effect of tropical climate. "It cannot be denied that the automatic block-signal system is expensive," said a former Assistant Engineer of Maintenance, "but the Panama railroad committed itself to this expense when the system was adopted, and there is no prospect of making any considerable saving at this time unless the system is abandoned and a less expensive one substituted for it." He concluded that electric signals are imperative under the conditions existing on the Isthmus. The railroad officials contend that the management of the electric-signal system should be turned over to them and that, if it were, the system could be operated much more economically; this conclusion appears to be extremely doubtful.

MEETING COMPETITION

As a means of increasing the attractiveness of the railway's service in case of stiff road competition, the possible electrifica-

tion of the road has been given some thought. For this purpose there is in the Canal Zone a large supply of electricity available at a low cost. Electrification would be the means of modernizing the railroad's equipment, but the capital outlay would be at least two million dollars. Would it pay? Electrification has been found economically justifiable to date only when there is a density of travel, where great speed is possible, and where trains need to be run more closely together than they are customarily on steam passenger lines. None of these factors operates in the case of the Panama railway line. The running time of one hour and forty minutes over the distance of forty-eight miles could not be safely increased very much without a considerable expenditure. However, when the shells of the present locomotive boilers need to be replaced, as they must be in eight or ten years, it would clearly be desirable to consider an alternative form of locomotion, either the Diesel engine or a motordriven one. Perhaps this change should be made before that time arrives.

Service on the road is comfortable and reliable. The roadbed is exceptionally smooth. The fastidious tourist finds very little difference between the Panama railroad and the best American roads except wicker seats (necessary in a tropical climate) and oil-burning lamps in the railway carriages. These relics of the history of illumination are found even in the modernized coaches of the railway and are patently inadequate.

It has been suggested by some that the Panama Railroad Company should build the Isthmian motor highway and, by charging tolls, amortize its investment at the same time it protects its railroad franchise. This action would undoubtedly call forth the dog-in-the-manger accusation. A possible alternative is to have the road built by some other agency and then to operate an attractive bus service both as an alternative form of travel and as a feeder to the road. This plan appears to possess merit.

Another means of dealing with competition would be for the Panama Railroad Company to operate the Isthmian air serv-

ice, which at the present time is run by a private licensee. The service was commenced about two years ago and has been on a sort of sufferance basis, only a nominal license fee being received by the Canal Zone administration. The air service now makes an appreciable dent on railroad-passenger receipts. Agents of Transisthmian Airways are permitted to solicit passengers on Panama Railroad trains, encouraging them to turn in their return tickets on airplane transportation. The railroad refunds the full cash amount on any tickets so secured. During the past year two thousand dollars in passenger receipts were relinquished because of this practice. There appears to be no reason why the Panama Railroad Company could not operate the air service successfully as an adjunct to its transportation service on the Isthmus. There may be military reasons, as well, in favor of putting Isthmian air travel under public operation.

HARBOR-TERMINAL OPERATIONS

In addition to the operation of the railway line, the General Manager has under his control the receiving and forwarding of freight, the baggage-transfer service, the coaling stations, and the Colon stables. These duties fit into the general pattern of railway management, and this part of the properties owned by the Panama Railroad Company has been co-ordinated into an effective operating unit.

The Receiving and Forwarding Agency is one of the most profitable and one of the most reliable of the Railroad Company's activities. The major portion of the business is located on the Atlantic side at the Cristobal dock; the Pacific terminal at Balboa is also under the same management. Roughly 85-90 per cent of the cargo handling occurs on the Atlantic side. The Receiving and Forwarding Agent reports to the General Manager of the Panama Railroad.

The docks and piers of the Panama Railroad Company are probably the finest facilities for handling commercial cargo to be found anywhere in the world. The company has expended almost five and one-half million dollars on its terminals, the

72 GOVERNMENT ENTERPRISES IN CANAL ZONE

major portion of the investment being on the Atlantic side. Needless to say, the permanent first-class construction adds to the overhead which must be carried.

The Railroad Company has the exclusive control of all docks and of the distribution of cargo for all parts of the world to the different steamship companies. The company possesses absolute control of the trans-shipment of freight from one line to another at the canal. Furthermore, the Receiving and Forwarding Agent is charged with the responsibility of segregating and dispatching freight for delivery by the railroad at points on the Isthmus. The net result is that no other steamship line is permitted to own or lease dock facilities at the Panama Canal and that no other concern may employ its own dock laborers to handle cargoes for delivery or trans-shipment.

The Panama Railroad Company becomes the custodian of all freight which clears at Cristobal or Balboa. The company separates cargo according to lands and ports, controls all employees on the docks, and accepts complete liability for freight received in sound condition. In addition, the company issues all manifests and documents for vessels under its agency. Finally, the Receiving and Forwarding Agent takes care of the sale of tickets on the docks when special tourist trains are run; the Receiving and Forwarding Agency is thus the connecting link between the railroad line and the steamship service. A good idea of the scope of harbor-terminal operations may be gained from the Railroad Company's latest *Annual Report*, which states:

The gross revenue from harbor terminal operations during the fiscal year was 1,257,256.58, and operating expenses were 809,804.72, leaving a net revenue of 357,451.86 as compared with 286,379.97 in 1932, an increase of 71,071.89, or 24.8 per cent, for the year. The gross tonnage of cargo stevedored, handled, and transferred during the fiscal year amounted to 1,357,369 tons, as compared with 1,301,370 for the previous year, an increase of 55,999 tons, or 4.3 per cent. Cargo stevedored amounted to 331,241 tons during the fiscal year, as compared with 311,836 tons for the previous year, an increase of 19,405 tons, or 6.2 per cent.

During the year "Hold for Order" cargo amounting to 10,979 tons was received and 10,948 tons were reforwarded and delivered locally, as compared with 14,001 tons received and 14,886 tons reforwarded and delivered locally in 1932. The revenue for handling and storage amounted to \$28,033.91 as compared with \$37,159.87 for the previous year, a decrease of \$9,125.96, or 24.6 per cent for the year.

During the year 3,593 cargo ships and 900 banana schooners were handled, as compared with 3,480 cargo ships and 1,020 schooners last year. Agency services were furnished to 197 vessels as compared with 192 in the preceding year.⁴

The charges made for receiving and forwarding are probably reasonable considering the liberality of treatment afforded to shipping companies. The rate for the conveyance of cargo from ship to ship, including thirty-five days' free storage, is \$1.80

TABLE II

Year	Net Revenue*	Year	Net Revenue*
1921	\$ 22†	1929	\$404
1923	279	1931	328
1925	320	1933	357
1927	276		
• In thousands. † Deficit.			

per ton. The storage provision is extremely liberal, but its value is not so great as formerly. In this day of breakneck ocean transportation everything depends upon speed. Hence, the company's storage facilities, contrary to the situation a few years ago, are usually almost empty.

The financial results for representative years show the profitableness and consistency of the harbor-terminal operations (see Table II). Between 1921 and 1933 the average net revenue was \$290,000 on an average net investment of \$3,653,000, and the average percentage of profit was 7.8 on the net investment.

Shippers, particularly those in the United States, have leveled considerable criticism at the harbor-terminal operations of the Panama Railroad Company.⁵ A large part of the com-

+84th Annual Report: Panama Railroad Company (1933), pp. 10-11.

⁵ For a summary see Chester Leasure, "Our Unfair Government," Nation's Business, January, 1929, pp. 21 ff.

plaint is attributable to the organized campaign against government operation and also to the monopolistic character of the undertaking. Criticisms of high charges probably have some justification, particularly during the period of depression. It is suggested that a fresh survey of comparative charging practices be made and that ways and means of reducing rates be inquired into. The shipping world is in general agreement that the service rendered is satisfactory, and very few lines would look with equanimity upon the control of harbor-terminal operations at the Canal Zone by a private company or by any other private interest. It is incumbent upon the Panama Railroad Company, therefore, to see that its charges are as equitable as they can possibly be. The company should set the pace and beware of the temptation to take advantage of its privileged position.

THE COALING PLANTS

Within the last two years the coaling plants, which are located at the canal entrances on the Atlantic and the Pacific sides, and which are owned and operated by the Panama Railroad Company, have been consolidated with the Receiving and Forwarding Agent's department. Here we have a good example of what can be accomplished by administrative reorganization.

The coaling services of the Panama Railroad Company are almost as old as the company itself, and they made a handsome return on the investment until 1919. The principal fueling station for American ships in the Caribbean area was naturally located at the Isthmus of Panama. Ships of all countries transiting the canal found that, with the exception of the coaling stations in the West Indies, their only source of fuel was the Railroad Company's plants; and because of the fact that coal was purchased in large quantities and was duty free, the price was attractive. In addition, of course, the railroad's locomotives and other steam engines on the Isthmus have long been supplied from this source.

All went well until ships began to change from coal to fuel

oil boilers. Since that time and until recent months, the coaling plants have done a waning business; with the advent of the depression years and the altered exchange rates, the number of ships transiting the canal was greatly reduced, leaving the overhead represented in plant and equipment a deadening weight for declining revenues to carry. During each of the depression years of 1922 and 1923 the plants actually showed a deficit. Then, beginning in 1931 the company began to sustain heavy losses in this department, and the coaling plants came to be regarded as white elephants.

Consolidation and reorganization took place about this time. On October 1, 1932, the coaling plants, which had formerly been independently managed, were placed under the Receiving and Forwarding Agent. This was a logical move, because fueling stations are intimately connected with harbor-terminal operations. A reduction of staff took place, and some of the remaining employees were put at part-time tasks on the docks. The coaling plants have again begun to make money. During the first six months of 1933 they showed a profit of \$27,000 as compared with a loss of \$49,500 during the same period of the previous year! The slow improvement in world-conditions, it need hardly be said, cannot fully account for the rapid convalescence of the coaling plants.

MINOR SERVICES

The baggage-transfer service has always been a relatively unimportant part of the Panama Railroad Company's business. The gross revenue in 1933 amounted to only \$10,000, involving a net loss of \$736. The company has never intended to make baggage transfer a source of profit, but, with the exception of the last two or three years, it has usually produced a small net revenue. Several years ago the Railroad Company leased the baggage service to a contractor in Panama. The experiment was not successful, because of damage claims against the corporation for theft and careless handling. Another venture of this kind might prove successful, to be sure, but, on the other

hand, the company can very well handle the business itselfiust as do some railways in other parts of the world. The Panama Railroad Company's ownership and control of the Colon stables is also a responsibility of the General Manager. The company built the concrete stables at a considerable expense when all wooden ones under Canal Zone control were confiscated as a health measure. So long as horse-and-buggy travel was popular the investment was a good one. The company still realizes a small annual profit on the rental of the stables, for that matter; but the petty administrative task of securing reliable lessees and of superintending the stables' condition is onerous. The relationship to the railway business is rather remote, although not entirely illogical. But as horsedrawn conveyances tend to disappear, the corporation's investment comes to be less secure. Less than half of the company's original investment of \$95,000 has been amortized. If sanitary conditions can be safeguarded, it is undoubtedly the best policy to dispose of the property.

SUMMARY

The unification and reorganization of the transportation facilities coming within the jurisdiction of the General Manager of the Panama Railroad Company have helped to improve the efficiency of the services and has afforded a check on the charges imposed upon the corporation by Panama Canal departments. The railroad line proper has fared far better during depression years than have railways generally. Its financial future seems to be secure so long as present circumstances remain about as they are. However, methods of meeting possible competition need to be looked into seriously. It is encouraging to observe that the efficiency and service of the railway line have been improved in recent years, and further improvements appear to be in the offing. On the whole, the accommodations supplied by the railroad compare favorably with those of the general run of railways in the United States. However, the rate policies seem to need reconsideration in certain respects,

THE PANAMA RAILROAD

77

particularly with reference to free passes and discounts of various kinds. The ancillary services of the railway line have strengthened their financial positions considerably in recent times, and the records of the harbor-terminal facilities and the coaling stations are particularly gratifying. The transportation services now form an integrated unit under the General Manager—an administrative organization which appears to augur well for the future.

CHAPTER V THE SHIPPING LINE

THE steamship service of the Panama Railroad Company was commenced soon after the company began railway operations on the Isthmus in 1855, and ever since that time it has been a link of the greatest importance between the United States and all of the interests located in the Canal Zone. Its principal value to the United States has been as a transport agency during canal-construction days, as a feeder to the railway line, and as a conveyor of supplies, equipment, and personnel needed in the maintenance of the Panama Canal and other Isthmian activities. But the Railroad's shipping line has not confined its attention to Canal Zone business; it has been in competition for commercial cargo since the earliest years of its existence. For many years the Panama Railroad Steamship Line (commonly called the "Panama Line") was the main reliance of the United States in the shipping competition of Central and South America. The Panama Line was a power in the development of the American merchant marine. However, with the establishment of several American private lines, which now operate in Central America, the Canal Zone, and the west coast of both Americas, the government-operated shipping line has had to withstand attacks of increasing vigor from private shipping interests. In recent years the discontinuance of the Panama Railroad Steamship Line has been one of the major objectives of the campaign to keep the government out of business. Then, too, the marine department of the Railroad has incurred rather serious deficits in recent years.

The problem of recommending a future policy relative to the shipping line is a difficult one. Granted that its competitors are also failing to make a satisfactory financial showing, is it not possible, nevertheless, that the balance sheet of the government-owned line might be converted from the red into the black? The effects of discontinuing the service altogether need to be considered, while at the same time the merits of modernizing and improving the line deserve attention. In other words, an analysis of the steamship line's operation and maintenance is so inextricably connected with some of the major issues of the American merchant marine as a whole that these larger issues of policy must be given consideration.

SCOPE OF STEAMSHIP OPERATIONS

The company's present steamship service between New York and the canal was inaugurated over forty years ago. In 1893 the Directors of the Panama Railroad Company, having become dissatisfied with the traffic results of the steamship line operated between New York and Colon by the Pacific Mail Steamship Company under a long-term contract that expired that year, decided to reinstate the company's service to the Isthmus. Many years prior to this, however, the company commenced the operation of a line of American flag-sailing vessels between New York and Aspinwall (later named Colon). Since then it has operated steamships during various periods not only on the Atlantic but also on the Pacific Ocean (between San Francisco and Panama, between Central America and Panama, and to the east and west coasts of South America). At one time in its history the Panama Railroad Steamship Line operated no fewer than fourteen ships.

When the United States government succeeded the French canal company as owner of the Panama Railroad Company in 1904, the question of what to do about the steamship service was one of the knottiest problems awaiting solution. On general principles Secretary of War Taft was adverse to the government's ownership of ships which would come into competition with those of private companies. The shipping interests and the transcontinental railroads besieged Congress and the administration, confident that the steamship line would be disposed of as one of the first moves of the new administration. In this ex-

pectation they were to be disappointed. The New York Mail and Express of March 17, 1905, after referring to the fact that "Uncle Sam now owns his first merchant steamship line," quoted Secretary of War Taft as saying: "It is the best thing that this country ever did to own and operate its own steamship line. It ought to be a profitable venture, besides saving enormous sums in the shipment of machinery and material for the construction of the canal." The administration made it clear that the desirability of owning its own steamship line was the government's chief reason for continuing the service. Further light is thrown on Secretary Taft's policies, however, by his statement a month later: "The Panama Railroad Company owns three steamships which ply between New York and Colon. We shall make the rate on these ships as low as possible, consistent with paying a reasonable compensation for the carriage and investment." When the government of the United States undertook the construction of the Panama Canal, the Panama Railroad Steamship Line was the only one operating vessels of American registry in commerce with the Caribbean countries and with Central and South America. Its competitors were foreign-flag steamship lines operating from the United States as well as from other countries.

At the present time the Panama Railroad Steamship Line consists of four ships, representing a total displacement of 24,000 tons. Only two of them carry passengers, and none of them is of modern type and construction. Two large twin ships, the "Ancon" and the "Cristobal," were purchased for the use of the company under an act of Congress approved in 1908, and two "lake"-type freight steamers were later purchased by the company from the Shipping Board. These steamers operate on a weekly schedule to Cristobal, calling at Port-au-Prince, Haiti. The principal traffic they carry consists of employees of the Panama Canal and of other government departments located in the Canal Zone, as well as the employees' families; supplies and materials for the Panama Canal and for the company's commissaries in the Zone; and goods consigned to merchants in the cities of Colon and Panama. Between 1922 and 1933 the southbound freight tonnage of the Panama Railroad Steamship Line fell from 106,228 tons to 79,346 tons, while the tonnage of the northbound traffic dropped from 114,187 to 32,176. Of the total southbound freight in 1933, almost 73 per cent was destined for the Isthmus of Panama, while Haiti received about 15 per cent, south Pacific ports about 5 per cent, Central America slightly over 4 per cent, destinations in Colombia about 2 per cent, and Mexico an infinitesimal percentage. The origins of northbound cargoes in 1933 were as follows: ports in the south Pacific 59 per cent, the Isthmus of Panama slightly less than 29 per cent, Haiti over 11 per cent, and Central America less than 1 per cent. Needless to say, although the amount of commercial cargo transported is not large, it makes an enormous difference in the financial showing of the company.

ORGANIZATION AND MANAGEMENT

The shipping line is managed from the New York office of the Panama Railroad Company and is under the personal supervision of the Vice-President. It is unquestionably one of the most efficiently conducted steamship services under the American flag. Mr. T. H. Rossbottom, the Vice-President, is primarily interested in ocean transportation; his worth was recognized when, in 1921, he was loaned to the United States Lines as General Manager, an office he filled with great success for five years. Under his immediate jurisdiction in New York there are the following departments: auditing (which is primarily concerned with the shipping line), a treasurer's office, purchasing (which buys for the Canal Zone commissaries and the ships), the freight and passenger departments of the steamship line, and the Port Superintendent.

The Panama Railroad Steamship Line is not an aggressive competitor for passenger business. Since the war it has been afraid to go out and compete for patronage in the United States because powerful interests were constantly attempting to have it put out of operation altogether. A clerk in the New York office takes care of all of the passenger service, which for the most part merely amounts to validating transportation vouchers which have been sold to employees in the Canal Zone. Only about a hundred commercial passengers each year use the facilities of the Panama Railroad Steamship Line. Advertising and solicitation have not been employed; the service is available, but the company has not entered into active competition with other lines. The fare is less than for first or cabin class on the private lines, and the cuisine and service are excellent. Except for a few weeks out of each year the company could supply accommodations for many more tourist passengers if a positive policy of competition were adopted.

The freight department is much larger and is more aggressive than the passenger department. There are twenty-four employees of the freight department in the New York office. In addition, the General Manager of the Panama Railroad Company is responsible for soliciting freight in Panama and for trans-shipment; in the month of January, 1934, 79 per cent of the total tonnage for Panama was solicited on the Isthmus. An agent of the company is located in Panama City. In addition, the company has agents on a commission basis in Chicago, Pittsburgh, and Montreal. There are also agents in certain South American ports, but this work has become unimportant since the cessation of the west-coast business.

The Railroad Company acts as agent for steamship lines which are active in shipping at Panama Canal ports. Through these contacts a large portion of the company's trans-shipment business is secured. At one time the Panama Railroad Company represented no less than twenty-three steamship companies at the ports of the Canal Zone, but although the number is now only nine, these companies operate eighty-nine ships.

The administrative oversight of the steamship line's affairs on the Isthmus is in the hands of the General Manager of the Panama Railroad Company. A single clerk stationed at Cristobal, and reporting to the New York office, has charge of the passenger department. The real work for the passenger service is taken care of by the Transportation Clerk in the office of the Executive Secretary, Balboa Heights. Travel arrangements for all employees are handled in his office.

The organization of the steamship line is complete with the Port Superintendent's department in New York City. A few years ago, as an economy measure, the offices of Port Engineer and of Pier Superintendent were combined, and the one office is now called "Port Superintendent." The functions of the Superintendent are to handle freight and stevedoring, to take care of dry docking and the engineering requirements, to employ all except the higher officers on the ships, and to handle the financial disbursements involved in port operations and ships' payrolls. From the city of New York the company leases Pier 65, advantageously located on North River.

The Port Superintendent's department, like all other divisions of the steamship line, is closely controlled by the Vice-President. All requisitions for repairs and all items of expenditure must pass over his desk for approval. The Port Steward must operate the dining service, including the passenger cuisine, on fifty cents a day per person. This means that waste, especially the careless throwing away of food, cannot exist. No seaman can be dismissed without an adequate justification to the Vice-President, and none of the officers can be discharged without a hearing before the Vice-President. The result is that there is a very small labor turnover, and employees are loyal and contented. Union wages are paid throughout, and employees are said to be better treated in every way than are the employees in most steamship services.

Rigid economy of operation is attained by the Vice-President's close surveillance and control. An executive of extraordinary experience, vigor, and business acumen, the present incumbent of the Vice-President's office is unquestionably one of the best steamship men in the game today. If governmentowned corporations could be sure of holding men like him, public commercial services would become as efficient and as progressive as any business undertakings in the world. He is paid a salary of fifteen thousand dollars a year—the highest salary paid in the Canal-Railroad organization. If the Panama Railroad Steamship Line did not have to operate with the full force of the private shipping interests set against it, the line would undoubtedly be one of the largest and best managed under American registry.

FINANCIAL RESULTS AND RATE POLICIES

Although the steamship service has incurred constantly growing deficits for the last four years, the total financial statement for thirty years of government operation shows a profit, as the record in Table III indicates. The deficit in 1933 was over \$320,000, however, causing a serious drain on the company's earnings from other services. The time has clearly arrived when drastic steps of some kind must be taken in order to make the financial results of steamship operation more satisfactory. Relative to the deficit incurred in 1933 the Annual Report of the company said:

Freight traffic of The Panama Canal and other departments of the United States government was carried at a reduction of 25% from established tariff rates. Passenger traffic for account of these government departments, including Panama Canal employees and their families, was carried at reductions from established tariff rates that range from 25% to 80%. These reductions in freight and passenger charges amounted to \$420,642.54. Had the steamship line been credited with its tariff rates on this freight and passenger traffic carried for account of the government, its operations would have resulted in a profit of \$100,157.89.¹

The position which the company takes relative to deficits incurred in steamship operation was stated as follows a few years ago by the Vice-President: "For the past five year period," he said, "the net revenue of the steamship line showed a deficit of \$298,261. The saving to the government, because of the application to its traffic of reduced instead of tariff rates, was \$2,-502,068. The saving to the government approximates \$500,000per annum; a discontinuance of the steamship line would make necessary an additional annual appropriation of \$500,000 for

¹ 84th Annual Report: Panama Railroad Company (1933), p. 7.

THE SHIPPING LINE

its freight and passenger transportation between New York and the Canal Zone." Even if the foregoing argument is accepted without reserve, it is clearly apparent that such hypothetical

TABLE III

RESULTS OF OPERATION OF PANAMA RAILROAD STEAMSHIP LINE UNDER UNITED STATES GOVERNMENT OWNERSHIP

Year	Deficit	Profit
1904 (1 yr.)		\$ 209,192.67
1905 (10 mos.)		58,730.01
1906 (8 mos.)	\$ 37,158.21	
1007 (I YI.)		158,562.95
ίοο8 (Ι VT.)	179,810.67	
1000 (I YT.)		104,995.98
QIO (I YI.)		167,952.25
QII (I YT.).		77,187.97
012 (1 yr.).	305,742.85	//,,/
013 (1 yr.).	34311403	221,489.92
1914 (I YT.),		314,296.36
1915 (1 yr.).	·····	
Q16 (1 y1.).	·····	499,853.42
		1,004,373.05
917 (1 yr.)	•••••	1,162,800.46
918 (1 yt.).		1,359,208.00
919 (1 yr.)		3,125,812.24
920 (I YI.)	117,676.56	
:921 (1 yt.)		629,399.55
922 (I YT.)	719,504.81	
923 (1 yr.)	369,282.60	
924 (I yr.)	558,637.05	
925 (1 yr.)	198,568.00	
926 (1 yr.)	285,349.26	
927 (I YT.)	48,967.77	
028 (1 yr.)		101,513.40
020 (I YT.)		46,856.38
030 (I yr.).	152,967.82	
031 (I yr.)	244,695.93	
932 (I yr.).	207,070.01	
933 (1 yr.).	320,484.65	•••••
Total	\$3,835,926.09	\$9,242,224.61
Total net profit	₩ 3,033,920.09	
Total het pront		5,405,298.52

bookkeeping falls far short of what should be expected from the business management of public services. But before we can be in a position to make constructive suggestions relative to the financial management of the steamship line, we need to analyze the discount policies just referred to.

86 GOVERNMENT ENTERPRISES IN CANAL ZONE

With the falling-off of freight shipments in recent years, most of the steamship line's revenue is derived from the passenger travel of Canal Zone employees. Inasmuch as they are given large reductions, the effect upon steamship revenues is very great. The full passenger rate to the Canal Zone is \$100. Employees of The Panama Canal, or of the Railroad, who entered the service prior to 1909, and their families, are charged \$20 per adult passenger for the 2,000-mile voyage between New York and Cristobal; employees entering the service subsequent to 1909, and their families, are charged \$30 per adult passenger. The published tariff rate of the other steamship lines operating from New York that call at the Canal Zone is about \$125 minimum for first class and about \$65 minimum for tourist.

These are not the only passenger discounts. The relatives of Canal Zone employees are given a reduction of 50 per cent on the one-way fare and $33\frac{1}{3}$ per cent on the round trip, both as an inducement to them to visit the Isthmus and as a means of securing more business. The employees of all departments of the United States government are given a discount of 25 per cent from the commercial tariff; this is of particular benefit to the Army and Navy departments.

The policy of granting passenger discounts on the steamship line is open to question, just as railway discounts are. In explanation of the reduced rates for employees' relatives, it is said that Zone employees were unable to go north on vacations because the provisions of the Economy Act of 1932 reduced the employees' pay and practically did away with their vacations. But this was merely a temporary situation, whereas the special rates have been made permanent. To be sure, this class of travel helps to fill up the Panama Line's ships; also, it is undoubtedly desirable to acquaint as many Americans as possible with the developments in the Canal Zone. But why are relatives of employees any more entitled to special consideration than are all American citizens? Good tourist accommodations can be secured on competing lines for about the same amount as that paid for a round trip on the Panama Line. The roundtrip tariff of \$150 for relatives is probably not too high, but the full commercial fare should probably be reduced. True, the comparison is between "one class" on the Panama Line and tourist class on other lines, but it must be remembered that the Panama Railroad ships are not so new or so fast.

Reduced rates for Army and Navy men who are stationed in the Canal Zone are probably necessary and desirable, inasmuch as the service is presumably rendered at about cost and is not substantially less than the rates granted by other lines. Then, too, service men usually travel on transports free of charge, and the Panama Line is simply attempting to obtain some of the business by offering the reduced rates.

Although these matters are significant from the standpoint of principle, their practical effect upon steamship revenues and expenses is not very great. The real problem is that of charges made for transporting employees of the Canal-Railroad organization.

PROPOSED METHOD OF ERADICATING DEFICITS

By some it is argued that no one should feel disturbed if the steamship service does lose a certain amount of money each year. They argue, properly enough, that every large corporation carries branches of its service which do not pay for themselves because these ancillary divisions are necessary in the business as a whole. The main business of the United Fruit Company and of the Standard Fruit Company is the marketing of bananas; and hence if their shipping lines lose money, but the business as a whole is profitable, no one should be concerned about the steamship deficits. The same thing might be said about the freight ships of the United States Steel Corporation or of the Standard Oil Company. Moreover, it is pointed out that these large companies which operate in the tropics provide their employees with cheap transportation and with other concessions which are usually more liberal than those enjoyed by the Canal-Zoners. To all of these arguments the reply is that when a business service can be made to operate on a paying

88 GOVERNMENT ENTERPRISES IN CANAL ZONE

basis it should be made to do so; otherwise laxness and inefficiencies are almost sure to eat into the sinews of the business.

Reduced steamship fares for permanent employees located in the Canal Zone are necessary and desirable. Unless employees and their families leave the tropics every year or two for a vacation in the invigorating climate of the north, the impairment of their health and efficiency will cost the government more in the long run than it would in transportation allowances. These facts are well established. The Canal Zone has been able to attract a higher class of employee than is found generally in the United States, and no short-sighted policy should be permitted to change this condition.

It is a good business investment to encourage employees to take a vacation in the north. Panama Railroad ships serve an invaluable purpose in making such facilities possible. The only serious issue is whether the policy of charging the whole vacation subsidy bill to steamship operation is a defensible or necessary one. It is believed that it is not. The subsidy is a part of the employees' compensation and is properly chargeable to the several services in proportion to the use made of the passenger service. It may be asserted as a general principle that if there are justifiable reasons for arranging cheap rates for personnel on active duty, the government of the United States should charge to the operating expenses of the department concerned the difference between the full fare and the reduced fare which is accorded to government employees. It is therefore recommended that the differential between what the employee pays and the steamship line's full fare be borne by the department in which the particular person is engaged. This policy would completely wipe out the current operating deficit of the steamship line.

Rate reductions are also in effect on freight hauled on account of the Canal, the Railroad, and government departments situated in the Zone. All of these establishments receive a reduction of 25 per cent from tariff rates. Other lines, in order to receive any of this government cargo, grant the same reduction from tariff. If full rates were charged by the Panama Line, the estimated increase would amount to \$100,000 a year; and if, as proposed above, \$300,000 additional revenue were to be derived annually from passenger traffic, the steamship line would be enabled to show roughly a profit of \$100,000 per annum on its operations. The commissaries and the Canal, the heaviest users of the steamship line, can afford to pay full rate on freight shipments. If present tariffs are too high, they can be reduced without any difficulty. It is therefore recommended that present freight discounts be discontinued altogether and, in case the earnings of the steamship line make it possible thereafter, that tariffs be reduced accordingly.

The Panama Line naturally secures more freight destined for the Canal Zone than do all of its competitors combined. Freight rates to the Zone must be controlled by the government-owned line, it is held, in order to safeguard the national interests located there. Commercial freight rates to the Isthmus are uniform, but the Panama Railroad rates for southbound freight are 10 per cent less on that cargo which is transshipped at Cristobal for west-coast ports of Central and South America. This differential was agreed to in conference with other lines. It is clearly justified because the cheaper service involves four handlings whereas the direct service requires only two, thereby lessening the possibility of damage and also making a speedier shipment.

ATTACKS UPON GOVERNMENT-OWNED LINE

The clash of interest underlying the controversy between the government-owned line and the private companies rests upon basic differences in policy. The private companies would like to make money for the owners; the Panama Line would be satisfied to make ends meet. The private companies seek higher rates for the shipping lines; the government-owned corporation desires low costs for Canal Zone services and for the commercial community generally. Representatives of the Panama Line have long contended that the American shipping com-

panies are shortsighted and selfish because they are constantly seeking higher rates when the interests of American foreign commerce demand transportation costs which are as low as those of foreign competitors. Unfortunately, there is a great deal of truth in this statement. American shipowners have not learned to think of the interests of American commerce first, and of themselves in relation to it. In controversies growing out of conference agreements the Panama Line has consistently adhered to the principle that tariffs should not be raised to such a point that American merchants have to pay more for ocean transportation than do their foreign competitors. In the last thirty years the government-owned line has done more to protect American traders against American shipowners than has any other instrumentality. The existence of a company representing the traders' and consumers' point of view as against the shipowners' is a good thing for the country. Unlike British traders, American business men are not drawn together into a strong organization in order to see that they get a fair deal from the shipping interests.

The gravamen of the private steamship companies' attack upon the Panama Railroad Steamship Line is that it need not make a profit; it may lawfully engage in discounts and it competes with private lines which are subsidized by the United States government, resulting in inconsistency and economic loss. Concerning the question of profit-earning, it need only be said that the Jones-White Act heavily subsidizes private lines; that most of them are sustaining considerable losses in spite of such assistance; and that if the recommendations concerning the tariff policies of the Panama Railroad Steamship Line contained in the foregoing are put into effect, the governmentowned line should be able to earn a profit. During a recent administration, mail contracts worth \$48,000 per year were completely taken away from the Panama Railroad Steamship Line and were given to a private company, which received more compensation but made no faster time. If the Railroad's steamship line had been extravagantly subsidized, as have some of

the private lines in recent years,² it would have shown a considerable profit instead of occasional deficits.

So long as the American merchant marine is so heavily subsidized, the supposed differences between government ownership and private ownership are not very impressive. But in order to get at the bottom of the clash of interest between the government-owned Panama Railroad Steamship Line and its competitors, we need to look into the identity of the competitors and the geographical points at which they come into contact.

There are only three American firms operating steamship services between New York and the Canal Zone with which the Panama Line comes into a sharp clash. One is the United Fruit Company, an industrial carrier, whose steamship service is subordinated to its fruit traffic. Thanks to large public subsidies, however, the company has built a fine fleet of passenger ships within recent years. The Colombian Line is a second competitor, particularly in the Haitian trade. It is controlled by the United Fruit Company and acts as a subsidiary in both the fruit and the general-hauling businesses; it, too, has built ships under the Jones-White Act. The third competitor is the Grace Line, a concern having important financial interests in South America and engaged principally in the development of trade to Central and South America, on which trade it secures the long haul from New York. All three of these firms have received large advances from the government for the construction of modern passenger and freight steamships, and all are receiving large annual mail subsidies under the provisions of the Iones-White bill.3

It is important to note that all of these companies were or-

* Investigation of Air Mail and Ocean Mail Contracts: Hearings Pursuant to S. Res. 349 (72d Cong., 2d sess., 1933-34), Parts I-V.

³ The Grace Line has mail contracts amounting yearly to \$2,454,474 and a government loan of \$14,739,806; the United Fruit Company's mail contracts amount to \$1,483,112, and its shipping subsidies are \$15,412,500; while the Colombian Line receives \$524,710 for transporting mail and has received \$3,614,500 for construction purposes.

ganized originally and are succeeding today as trading companies owning important businesses in Central and South America. Their shipping lines are essential to their operations, but they do not constitute the foremost consideration. Moreover, the interests of these trading companies naturally conflict at times with those of business competitors for whom they offer to do a transportation service. It is not surprising, therefore, that business men and local chambers of commerce in Central and South America have on several occasions sent memorials to the Panama Railroad Company, to Congress, to the President, and to Cabinet officers when they have heard that the Railroad's shipping service was to be withdrawn from their ports. The American shipping lines are traders and business entrepreneurs first and common carriers secondarily; the government-owned line is strictly interested in encouraging trade relations for the American business community as a whole. It is true, as frequently stated, that the existence of the Panama Railroad Steamship Line has continuously brought business to the shores of the United States when otherwise it would have been diverted to foreign ships and to foreign industry.

RESTRICTION OF COMPETITIVE SERVICE

Within the past few years the Panama Railroad Steamship Line has been forced to restrict its operations in order that it would compete as little as possible with other companies. A brief analysis of the company's operations in recent years will make the situation clear. As the construction of the Panama Canal proceeded, the Secretary of War received requests from the State, Commerce, and Navy departments that the Directors of the Panama Railroad Company extend the steamship service to ports in the Caribbean and to the west coast of South America for the purpose of developing commerce with those countries. Because the company's entire steamer capacity was required for construction, it was impossible for the company to take favorable action at that time.

The construction of the canal being completed, the Panama Railroad Steamship Line began calling at all ports in Haiti in 1917, at the request of the State, Commerce, and Navy departments. That service was discontinued on January 1, 1924, by an agreement with the Colombian Line, except that the Railroad ships continued to stop at Port-au-Prince. The Colombian Line undertook to furnish service to the Haitian outports in competition with the Royal Dutch Line. The pressure on the Panama Railroad Company came primarily from the Colombian Line, the Shipping Board, and the American Steamship Owners' Association. At this time the Panama Railroad ships were getting about 80 per cent of Haiti's freight business. Fourteen months after the conclusion of the agreement with the Colombian Line, the American consul in Haiti advised the State Department that because of the Colombian Line's discontinuing calls at Haitian ports on the northbound trips of their steamers from the east coast of Colombia, and because also of the intensive competition of the Royal Dutch Line, 85 per cent of the Haitian traffic previously carried by the Panama Line had been diverted to the Royal Dutch Line, and at increased rates of freight. We shall refer to the Haitian situation again in a moment.

The Panama Railroad Steamship Line was forced to discontinue its service to the west coast of Colombia and Ecuador in 1931, after the business had been inaugurated in 1920 in order to prevent American commerce with those countries from being completely controlled by foreign-flag steamship lines operating from New York and from Europe. This action was taken in response to protests made to the Department of Commerce and to the Secretary of War by the American Steamship Owners' Association, the Shipping Board, and the Grace Line, which later undertook to furnish an adequate steamship service in place of the one the Railroad Company discontinued.

A few years ago an official of the Panama Railroad Company wrote as follows: "The discontinuance of our steamship service to the minor ports in Haiti, to the east coast of Colombia, and to the west coast of Colombia and Ecuador is indicative of the company's policy of interfering as little as possible with the business of privately owned American steamship lines. The laying-up of our collier fleet on Gatun Lake, and the conclusion of an agreement by which our coal requirements have, for several years past, been carried by privately owned steamships, is referred to as proof of that policy."

In the last few years the storm center of controversy over the Panama Railroad Steamship Line has been the Port-au-Prince, Haiti, business. Since 1931 this has been the company's only stop outside of Cristobal and New York. The steamship line's back has been up against the wall, and it has been fighting for its very life. The record of the Panama Railroad Company in Port-au-Prince is a remarkable one, showing that the agents of government-owned corporations can be quite as aggressive and just as successful as those in the best private companies. In Port-au-Prince the Panama Railroad Company with four ships is competing with the Colombian Line, which operates six steamers, and the Royal Dutch Line, which has five. During the last six months of 1933 the Panama Railroad's line secured slightly over 51 per cent of the total outbound freight traffic from Port-au-Prince and 37 per cent of the inbound traffic; and the Railroad Company's proportion has constantly increased. Unlike the usual objection that government operation is inefficient, the steamship owners' contention is that the Panama Line is too aggressive!

On February 23, 1933, the then Secretary of War wrote to the Board of Directors of the Panama Railroad Company as follows: ". . . . It is therefore directed that the necessary steps be taken to discontinue the service of Panama Railroad Company steamers to Port-au-Prince, Haiti, as soon as possible." At its special meeting on March 1, 1933, the Secretary of War being absent, the Board of Directors adopted the following resolution:

Resolved, That the question of the discontinuance of the company's steamship line service to Port-au-Prince, Haiti, as soon as may be practicable, be and the same is laid on the table until an early meeting, and that the date for such early meeting be tentatively fixed for Thursday, March 9, 1933.

This, of course, was five days after a new administration had been inducted into office!

REASONS FOR CONTINUING PANAMA LINE

On several occasions since 1919, Congress has considered bills which would have meant the discontinuance of the Panama Railroad Steamship Line, but every such move has been definitely killed. Moreover, the Governors of the Panama Canal and several of the Secretaries of War have objected strongly to any further restriction on the scope and operations of the New York-Cristobal service of the Panama Line. The arguments supporting the retention of the present service may be summarized briefly as follows:

As former Secretary of War Dwight F. Davis said: "The Line is an integral part of the Panama Canal and indispensable in its discharge of its normal responsibilities. The successful operation of this great enterprise, which is of vital importance to the United States, demands absolute security as to its line of supply to this country. Discussing the proposal to rely only on privately owned ships, the Governor of the Canal Zone wrote, 'I cannot see anything but disaster for the canal from such procedure. It would be directly opposed to sound military defense procedure and to the economical and business operations of the Panama Canal.'"

The commercial interests on the Canal Zone are of sufficient extent and importance to justify the operation of a steamship line devoting most of its attention to this business.

If the service of the Panama Railroad Steamship Line were discontinued, it is entirely natural to expect—judging from past experience—that rates of other lines would be raised considerably. This would be injurious to the commerce of the United States and to the interests of the Canal Zone.

The private companies might be willing to transport Canal

Zone freight at lower than tariff rates, but they have admitted that they can nowhere near equal the reduced passenger tariffs given to Zone employees. It is believed, as has been said, that these discounts are uneconomically low and that the several services concerned should be billed for the difference. It is possible that these payments might be made to private lines, but in view of the other reasons given for continuing the service this alternative is not recommended.

The Panama Railroad Steamship Line is efficiently managed. It should be continued as a means of keeping rates low for American commerce and as a means of successful competition with foreign-flag steamships.

The shipping companies that desire the discontinuance of the Panama Line and that are facing financial difficulties as a result of the heavy capital expenditures for new construction to which they are committed cannot expect material financial relief from the discontinuance of the four vessels the Panama Line is operating between New York and the Canal Zone.

The entire tendency in the international shipping world is in the direction of large government subsidies and thinly masked government operation and control. Germany, France, and Italy have set a pace in this direction which the United States and even Great Britain are being forced to follow. Judging from all indications, government control over the American merchant marine may be expected to increase, even to the extent of forming government-owned corporations which may take over financially stricken steamship companies. If, as may be expected, the foreign investments and the foreign trade of the United States expand toward Central and South America, the Panama Railroad Steamship Line will be found a valuable instrument in the maintenance of rates which will permit American commodities to capture southern markets without the necessity of relying upon foreign ships. A discontinuance or curtailment of the steamship service of the Panama Railroad Company would be contrary to the trends of shipping control in other countries and would be injurious to the larger interests of American commerce.

THE SHIPPING LINE

In view of the foregoing analysis of the situation it is recommended that:

r. The Panama Railroad Company give immediate consideration to the replacement of their two large, old-fashioned passenger steamers by ships of modern design and construction. The company decided to take this action several years ago, but it was forestalled by President Coolidge. Ample reserve funds definitely earmarked for ships' replacement are available for this purpose.

2. Serious attention should be given to the recommencement of the freight pick-up service by small steamers on the west coast of South America. There is considerable evidence to show that the present large steamers which have operated this route since the Railroad discontinued its service in 1931 are not giving satisfaction to the small ports, from which an important and valuable trade can be obtained.

3. Finally, as has been said, the steamship line should be made to pay its own way. There is every reason why it should and can do so. The existing cause of deficiencies can be eradicated by the adjustment of passenger and freight discounts recommended above.

On the basis of its past performance and its future possibilities the Panama Railroad Steamship Line deserves a new and a better lease on life.

CHAPTER VI

BUSINESS SERVICES OF THE CORPORATION

THE railroad line proper, the harbor-terminal facilities, and the steamship service are the only major operating units under the direct management of the Panama Railroad Company; it is important to note that they represent only slightly over half of the capital investment of the corporation. The remaining enterprises, involving a financial outlay of more than \$17,000,000, are owned by the Panama Railroad Company but are managed—with one exception—by Panama Canal employees. The services which will be considered in this chapter may be called "business" units because of their commercial nature, as contrasted with the public utility characteristics of the railway and the shipping line. We shall deal primarily with the Canal Zone commissaries, one of the most important and also one of the most interesting undertakings on the Isthmus. As subsidiaries the commissary division operates various wholesale and manufacturing units. Other ancillary enterprises which are owned by the Panama Railroad Company but are operated by Panama Canal personnel are two tourist hotels, a dairy farm, a cattle industry, and agricultural acreages. All of the services which have been mentioned are grouped at present under the Supply Department of The Panama Canal.

The Panama Railroad Company also owns the telephone and electric-clock systems, which are operated by the Electrical Division of The Panama Canal. Finally, the corporation has a Land Agent, who takes care of the company's important interests as owner and landlord in the Canal Zone and in Panama City and Colon. He is paid by the corporation and reports directly to the Governor-President.

The extent of the Railroad's investments and the relative im-

portance of each is shown in the summarized statement in Table IV.

It will be observed that the enterprises with which we are going to deal in this chapter—particularly the Commissary Division and its subdivisions—are merchandising businesses. In recent years people everywhere have become accustomed to

TABLE IV*

Railroad and appurtenances	\$11,413,571.20
Docks, piers, and appurtenances.	5,472,411.16
Coal plants.	1,046,879.06
Baggage transfer	5,621.43
Colon stables	97,388.94
Telephone and electric clocks	1,267,455.61
Real estate	8,110,174.65
Hotel Washington.	858,729.82
Hotel Tivoli	41,525.46
Cattle industry.	177,659.89
Plantations.	39,271.00
Commissary	4,255,985.04
Dairy farm.	111,280.58
Uncompleted construction and improve-	
ment	26,197.26
Concession from United States of Colom-	
bia	1.00
Floating equipment.	2,457,221.04
Miscellaneous shore equipment (New	
York and Haiti)	9,523.65
Total capital investment	*ar and 806 m

Total capital investment..... \$35,390,896.79 * Condensed from 84th Annual Report: Panama Railroad Company (1933), p. 24.

seeing public agencies own and operate public utility services, such as the water supply or the gas and electricity service. But here we have the government, because of the combination of circumstances operating in the Canal Zone, acting as department-store owner, grocer, baker, laundryman, and merchant generally. How does this type of enterprise fit into the public utility and engineering pattern? Are the problems of organization, finance, personnel, and management essentially the same

as in the utility services? Can engineers and public utility officials make a success of the merchandising businesses, or are they, as government agencies supposedly are, constitutionally handicapped to engage in ventures requiring adaptability and sensitiveness to consumers' demands?

At the outset of such an evaluation it is important that we should understand clearly the nature of the commercial activities and the respects in which these functions differ from ordinary business enterprises in the continental United States. The business services in the Canal Zone are not precisely comparable to competitive undertakings. Generally speaking, competition with Canal Zone undertakings does not exist. In ordinary businesses competition is the most important element to be considered when comparing good and bad business operationsbusiness operations in the usual sense. Successful competition is usually the proof of business "genius." But when competition is removed, the character of the "selling" process is altered. When, in addition to that, all of one's sales are made to one's own employees, the character of selling is still further modified. This, then, is the situation which exists in the Canal Zone. All business principles applicable to purchasing, warehousing, and distribution pertain to Canal Zone business undertakings, but competition is absent, and hence "selling," in the usual sense of the term, does not play the important part it does ordinarily.

Our inquiry will not lead us into great detail. The primary objects of this chapter are to give a general view of the results reached in managing the business enterprises of the Panama Railroad Company, to make constructive criticisms where they seem to be defensible, and to relate the conduct of this branch of the corporation's work to the larger problems of organization, finance, personnel, and management, which form the central theme of the present study.

CONTROL OF COMMERCIAL SERVICES BY SUPPLY DEPARTMENT

Although all of the business undertakings which have been mentioned are engaged in rendering services to consumers, they are under the jurisdiction and control of The Panama Canal's Supply Department, the function of which is revealed by its name. This development took place during canal-construction days and bears the unmistakable marks of Army organization and terminology on the management of the Railroad Company's business enterprises. In order to understand the overhead control of the commissaries, the hotels, the cattle industry, and the manufacturing plants, we shall have to examine the organization and functioning of the Supply Department of The Panama Canal. Moreover, we should pay special attention to the administrative set-up of the Railroad's business enterprises, because they present one of the most important problems of overhead reorganization.

The Supply Department is under the supervision and direction of the Chief Quartermaster—a title which was obviously borrowed from the Army. The department is charged with the ordering, storage, and distribution of material and supplies for use of The Panama Canal, the Panama Railroad, and their employees; for other departments of the government on the Isthmus and their employees; and for transient vessels of the United States and other countries, when required. The Chief Quartermaster is also responsible for the maintenance and construction of buildings, the assignment of quarters to all employees on the Isthmus, the care of grounds, the recruiting and distribution of unskilled labor, and the operation of necessary animal and motor transportation.

These are the usual functions of a staff^r agency engaged in supplying the residence, subsistence, and transportation needs of the operating services. But in actual practice a large part of the importance of the Supply Department of The Panama Canal is the result of its being the director and supervisor of business enterprises, most of which are owned by the Panama Railroad Company.

The department is charged with the responsibility of operat-

¹ As the term is used in Public Administration in contrast with the narrower meaning it has in the Army.

ing the commissaries, the manufacturing plants, the two hotels, the plantations, the cattle industry, the dairy, the laundry, and the Panama Canal Press. All except the last-mentioned are owned by the Panama Railroad Company. An enumeration of the principal units of the Supply Department will clarify the situation and clearly reveal the extent and importance of the services grouped under this department:

- a) Commissary Division and manufacturing plants [P.R.R.]
- b) Quartermaster Division-the assignment and rental of quarters, etc.
- c) Storehouses and fuel-oil plants
- d) Constructing Quartermaster Division—the maintenance and construction of buildings, etc.
- e) Dairy and Cattle Industry Division [P.R.R.]
- f) Transportation Division—the operation and maintenance of all animal and motor transportation
- g) The Panama Canal Press—the printing of stationery, forms, etc., for The Panama Canal and the Panama Railroad Company
- h) Subsistence Section—the operation of the Hotels Tivoli and Washington [P.R.R.]
- i) Canal Zone experiment gardens

Formerly the restaurants on the Isthmus were run by the Subsistence Section of the Supply Department, but when the lease expired on May 15, 1934, they were consolidated with and are now operated by the Clubs and Playgrounds Bureau of The Panama Canal.

The Chief Quartermaster is aided in his executive oversight of all these duties by an Assistant Chief Quartermaster. A clear-cut division of responsibility for particular branches of the department has taken place. The Chief Quartermaster devotes his attention to the Commissary Division, the storehouses and fuel-oil tanks, the Constructing Quartermaster Division, and the Panama Canal Press; while the division having charge of housing accommodations (Quartermaster Division), the cattle-industry division, the transportation service, the two hotels, and the Canal Zone experiment gardens are under the personal supervision of the Assistant Chief Quartermaster.

CANAL ZONE COMMISSARIES

The Commissary Division is easily the largest and the most important unit of the Supply Department. It is the largest business unit on the Isthmus, and in the scope of its operations it rivals the most complete department stores in the United States. Doing a gross business of from eight to twelve millions of dollars yearly, it has a monopoly on the ordering, storage, and sale of all food supplies, clothing, and other requirements of modern life. Its twelve retail stores located at the principal population centers on the Isthmus are buttressed by wholesale warehouses, a bakery, an ice-cream and milk-bottling plant, a complete industrial laboratory, an ice factory, an abattoir, cold-storage plants, a coffee-roasting unit, and a laundry. The capital investment in the commissary and its manufacturing units is \$4,255,985, and its employees number between thirteen hundred and sixteen hundred persons, depending upon the volume of business.

The Commissary Division was set up as an independent financial unit in 1909, but the Panama Railroad Company and the Isthmian Canal Commission had naturally been operating commissary services for their employees from the very outset. Since that time the financial results of operation have appeared on the balance sheet of the government-owned corporation, but the responsibility for management has rested with the Supply Department of The Panama Canal since 1008. In other words, the corporation owns the property but does not manage the business. The purchasing department in the New York office of the Panama Railroad Company handles all purchasing operations. but the Vice-President in New York and the General Manager of the Panama Railroad Company on the Isthmus are not expected to interfere with the conduct of the commissary business on the Isthmus. The salary of the head of the Commissary Division is paid by the corporation, but he reports to the Chief Quartermaster of The Panama Canal. Surely this is an anomalous situation, but it is by no means singular in the Canal Zone.

Because of the fact that the Chief Quartermaster is located in the Administration Building on the Pacific side while the General Manager of the Commissary Division has headquarters at Mount Hope on the Atlantic side of the Isthmus, the commissary establishments are somewhat freer from meticulous supervision than they would be otherwise. This fact has resulted in the commissaries becoming a more or less independent operating unit, although as we shall see they are probably not so autonomous as they should be. The Chief Quartermaster reserves important powers over pricing, personnel, and purchasing, controlling the policies of the General Manager in certain important respects. Moreover, the Accounting Department controls the finances of commissary operations, and the Executive Department holds a firm grasp on personnel-both from Balboa Heights, across the Isthmus from the General Manager. All delivery trucks and automobiles used on official business must be requisitioned from the Transportation Division of the Supply Department.

The General Manager does have effective authority in other respects. The General Manager controls all ordering of stock and all relations with the purchasing department in New York City; the Chief Quartermaster obviously might have monopolized this important function, with a result which would be clearly objectionable. The officials who sell commodities and who acquire first-hand experience with their turnover are always the ones to control orders and supplies. Moreover, the cost-accounting and statistical work of the Commissary Division has been developed under the immediate responsibility of the General Manager. The segregation of accounts is practically complete by the time the reports reach the Auditor's office at Balboa Heights. Then, too, the wholesale units and all of the manufacturing plants are clustered in one compact unit about the General Manager's office at Mount Hope. This physical unity affords corporate intactness and practical administrative co-ordination. Too, the largest retail store, the one at Cristobal, is located not far away. Finally, the supervisory control of retail stores is exercised by the General Manager and the Assistant General Manager with practically no assistance from the Chief Ouartermaster.

The organization of the Commissary Division is divided into two main branches, one consisting of manufacturing plants and

TABLE V
GENERAL MANAGER AND ASSISTANT GENERAL MANAGER

Manufacturing Plants and Warehouses	Retail Stores	
Wholesale groceries	Sectional accounts	
Wholesale tobacco and candy	Retail groceries, Mount	
Wholesale operating supplies	Hope	
Wholesale dry goods	Retail cold storage, Mount	
Wholesale hardware	Hope	
Wholesale shoes	Cristobal commissary	
Wholesale cold storage	Balboa commissary	
Wholesale meats	Ancon commissary	
Wholesale dairy products	Ancon market commissary	
Abattoir	Pedro Miguel commissary	
Vegetable room	Red Tank commissary	
Bakery	Gatun commissary	
Coffee-roasting and packing department	Paraiso commissary	
Ice-cream and milk-bottling plant	Gamboa commissary	
Industrial laboratory	La Boca commissary	
Laundry, Ancon	Silver City commissary	
Refrigerating and ice plant, Mount Hope	Madden Dam commissary	
Refrigerating and ice plant, Balboa		
Soap plant		
Delivery section		
Mechanical operating force		
Utility gangs		
Gardeners		

wholesale warehouses and the other of the retail stores. Table V shows the administrative relationships.

Although the Panama Railroad Company was operating a commissary supply as far back as 1885, the provisioning services were kept at a minimum even during canal-construction days. The frame buildings resembled backwoods stores, with

simply the minimum assortment of canned goods and staples on the shelves. There were not so many married men in the Canal Zone in those days, and life was rather raw and crude. In the intervening period, however, family men have largely supplanted bachelors; and the population's range of desire and ability to pay have increased many fold. This is not to suggest that Canal-Zoners are overpaid or that their desires have become extravagant; it is simply to explain why the work of the Panama Railroad commissaries has grown from a pork-andbeans beginning to a silk-stocking maturity. In an attempt to keep pace with increasing consumer demands, the commissary management has stocked most of the grocery, dry goods, home furnishing, and hardware merchandise which is found in the larger department stores. This is one of the reasons that Panamanian merchants complain; what they label "luxuries" have become articles of ordinary use and consumption in Canal Zone life. Moreover, the demand for so-called luxury goods is increased by the Army and Navy personnel, who naturally are encouraged to patronize the commissaries, and also by the staffs of businesses such as the shipping, oil, and fruit companies, who, because they reside in the Canal Zone, are entitled to commissary privileges. However, the proportion of sales represented by such business is quite small.

The volume of commissary business is also explained by sales to ships transiting the canal and by purchases made by the Army and Navy departments. In times past these sources of revenue have accounted for a substantial part of the commissary's transactions, but in recent years there has been a considerable shrinkage at this point. Between 1929 and 1933, sales to commercial vessels fell from 1,134,886 to 224,416, a decline of 74.1 per cent, while sales to the United States government dropped from 1,515,100 to 964,376, a decrease of 36.3 per cent. In consonance with the recent agreements entered into between the United States and Panama, the commissaries have reduced the number of items which may be purchased for "canteen" use by ships. At no time for many years past have regulations permitted sales to steamship passengers or to individual members of the crew. The falling-off of Army purchases has been the main cause of decreased sales to the United States government in recent years, but steps are now being taken by which it is hoped the Army's Isthmian purchasing will be restored to the commissaries. Because of the large-scale operations of the Canal Zone commissaries, they should be able to supply many of the Army's needs more advantageously than can the Army itself.

COMMISSARY FINANCE

The total business of the commissaries has fallen off in recent years, not only in so far as outside sales are concerned, but also in business done with employees of The Panama Canal and the Panama Railroad Company. This may be attributed to the

TABLE VI

REVENUE FROM COMMISSARY SALES, 1927-33

1927	\$ 9,128,580	1931	\$10,068,201
1928	9,682,241	1932	8,347,226
1929	10,479,571	1933	7,313,380
1930	10,791,490		

15 per cent cut, to the necessity of increasing prices as volume fell off, and to the commissary's inability to reduce operating costs as rapidly as they have been in most cases throughout the United States. The trend of recent years is shown in the statement in Table VI. Whereas retail sales averaged around \$800,-000 monthly a few years ago, they are now in the neighborhood of \$500,000 a month. Retail prices, needless to say, are dependent very largely upon volume of business. The problem of the management is therefore that of restoring net sales to their former level. An assured demand from the Army would assist substantially in making this possible.

Lessened volume of sales also makes the ratio of operating expense higher, and it was already considered more than it should have been before the business slump of recent years. Within the last seven years the percentage of operating costs to

revenue from sales has ranged from a minimum of 21.90 per cent in 1928 to 29.55 per cent in 1933. The problem of reducing fixed charges and operating expenses deserves a great deal of attention; and fortunately this problem is being exhaustively studied as one of the researches directed by the Engineer of Maintenance. We shall refer to overhead charges again in connection with criticisms of the commissaries.

In the period between 1915 and 1933 the Panama Railroad Company made a net profit on commissary operations of \$4,-971, 801— a very tidy sum. Prior to 1915, commissary earnings were lumped with "Miscellaneous Receipts," but it is safe to say that the activity was always profitable. The net profit in 1933 was \$224,876, a decrease of \$105,834, or 32 per cent, in one year,² this represented a return of over 5 per cent on the investment.

In recent years it has been the announced policy to make a profit of 2 per cent on the investment in commissaries, but this amount has been exceeded. When the commissaries first began operation, it was understood that no profits were to be made from sales to employees. The profit policy was inaugurated during the war, when goods were being sold at a price below the cost of replacement. Earlier, however, the earning of profits had been permitted on sales to ships. Subsequent to the visit of the "Weeks Commission" in 1921, a definite policy was laid down; the Governor approved a policy of selling merchandise at a price which would cover cost and all selling expense and give a net return of approximately 2 per cent on the turnover. At this time the Chief Quartermaster stated that the 2 per cent net profit was an offset to losses involved in connection with writing down to replacement values of stocks on hand. It is not clear whether or not this was meant to be a permanent policy. At any rate, if we compute commissary profits on the basis of a return on capital investment (including fixed, working, and inventory capital), we find that the net profits from 1923 to

² The value of two warehouse buildings and a bakery in Cristobal, amounting to \$73,355, was charged to current operations in this year.

1933 represent a minimum return of 5.18 per cent and a maximum return of 11.28 per cent. The announced policy of the present administration is to earn a return on the commissary investment of 3 per cent, and steps are being progressively taken to reduce the earnings to this figure.

The total fixed-capital investment of the Commissary Division has increased over 65 per cent since 1910. The résumé given in Table VII may be suggestive. It will be observed that

Date	Book Value	Depreciation	Net Investment
1910	\$ 638,464	\$ 586,222	\$ 52,242
1915	1,016,617	354,485	662,132
1920	3,236,275	649,257	2,587,017
1925	2,198,279	667,359	1,530,020
1930	4,157,247	1,000,082	3,067,164
1933	4,255,985	1,277,225	2,978,759

TABLE VII

INVESTMENT IN COMMISSARY BUILDING AND EQUIPMENT

the net investment is influenced very much by depreciation. The increased investment generally is explained largely by the growth of population and by the higher standards of living found in the Canal Zone. Moreover, in place of rude wooden structures which once served the commissaries, modern concrete buildings with attractive furnishings and equipment have been introduced in order to satisfy more fastidious tastes. Recent construction has been built to stay. The new warehouse building at Mount Hope, for example, cost over \$750,000, is 482 feet by 122 feet in dimension, is built of concrete throughout, and is supported by columns of concrete 34 inches in diameter. Needless to say, this type of construction has added materially to fixed charges and to depreciation costs and hence, indirectly, to retail prices. The possibility of reducing overhead costs generally will be considered at a later point.

CRITICISMS OF COMMISSARY MANAGEMENT

Many and varied are the criticisms of commissary operations. We shall mention some of the most frequently voiced ones in order to focus attention upon some of the problems with which we shall have to deal in the balance of the discussion. Many of the criticisms apparently represent nothing more basic than the perennial explosions of bored housewives who are looking for a convenient object upon which to externalize their aggressions. In this class may be put the statements that a monopoly is inherently intolerable and that the Panama Railroad Company gouges the Canal-Zoners in order to make larger profits for the government. However, when the merchants of Panama join the refrain and wind up with the conclusion that commissary activities should be restricted, the Canal Zone population rises in defense of the excellence of the present system. Commissary prices are considerably lower on most purchases than are prices in Panama. But even the foregoing general complaints have some foundation: a state of mind is sometimes more determinative than the naked truth.

Perhaps the best thing to do is to record the hodgepodge of complaints and to decipher them in later discussion. According to one consumer or another, prices are too high and they have increased steadily for years; retail prices in the Canal Zone used to be lower than in the United States but now the reverse is true; operating costs and fixed charges of the commissaries have increased out of all proportion; the customary mark-up on commodities is so high that the commissary management must be guilty of either inefficiency or extortion; there is too much waiting in line at grocery stores and meat markets; clerks are not always attentive and are sometimes insolent; dealing with "silver" clerks is objectionable; when the Commissary Division makes an advantageous purchase and the wholesale price later goes up in the United States, the commissaries increase their price and their profit instead of giving the customer the advantage; units of the Commissary Division which lose money on their operations are supported by other enterprises, thereby

raising the general price level; wholesale prices are not uniform to all purchasers, such as the Army, the restaurant proprietors, etc.; the great majority of the commissary employees are British West Indians, who are occupying positions that might be filled advantageously by Americans; and, finally, the commissary management is said to be shortsighted in failing to reduce drastically the price of commodities which do not sell well and in failing to replace them with a fresh supply which will turn over rapidly. There may be other criticisms, and it is possible that they have more foundation than many of the above-mentioned. However, we shall not deal with each of the foregoing complaints explicitly, but we shall be content to consider the general problems which seemingly encompass most of the adverse criticisms.

The primary index of the consumer's satisfaction or complaint is naturally price; if he believes that Canal Zone prices are well below States' prices, he is happy. Such comparisons are difficult if not impossible to make. The price on "leaders" in chain stores and the retail price on perishables will naturally be lower in the United States; the commissaries have never indulged in "leaders," and they must transport perishables at least two thousand miles, usually involving several transfers and changes of temperature. However, in a comparison of price levels generally there is reliable proof that commissary prices are below those in the United States. On some articles they are substantially lower; at the deepest point in the depression, commissary prices were probably slightly above the States' level; but over a period of ten years or more an appreciable differential has been enjoyed by the Canal-Zoners.

The advantages which the Zone commissaries have over merchants in the United States are offset by items of increased expense. The commissaries enjoy two principal benefits so far as price is concerned, to wit: They are not required to pay duty or taxes, and their profit expectations are very modest. On the other hand, freight charges by train in the United States, by boat over twenty-one hundred miles to the Canal Zone, and by

rail on the Isthmus account for a substantial increase over initial costs. Spoilage losses on perishables amount to a considerable item of expense. Between 1922 and 1933 the loss sustained in connection with the condemnation, spoilage, etc., of fresh fruits and vegetables totaled \$881,659-an average annual loss of \$80,000. With the improvement of steamship refrigeration this enormous loss is gradually being reduced. Other important differences undoubtedly do exist, but they may be classified as controllable factors rather than as natural disadvantages. The greatest natural burden of the commissaries, let it be repeated, is the differential represented by transportation costs, which are relatively fixed and unalterable. Hence, economical transportation, like the profit from commissary operations, is dependent primarily upon volume of business. In addition, contrary to the widely held view, the success of commissary operations is largely dependent upon the sale of so-called "luxury" goods. These articles can be marked up 60 per cent or more and still be sold at a price which is attractive to the consumer.

The cost of carrying on commissary operations is relatively high. In 1933, for example, the value of sales and services (excluding inventory, merchandise purchased for sale, and merchandise purchased for manufacture) was 4,853,739, while the total expenses (exclusive of stock purchases) amounted to 2,-161,408.³ A study made in the Canal Zone during 1933 showed that the price paid by the commissary patron for 100 of goods included a mark-up to cover operating costs of 330; this represented an increase of 88 (or 8 per cent) over a period of five years. The percentage of mark-up added to the C.I.F. (cost, insurance, freight) value of merchandise to defray operating expenses of the Commissary Division ranged from 35 per cent on boots and shoes to 62 per cent on tobacco; the average for all commodities was 41 per cent. These findings undoubtedly suggest that the cost of distribution on the Isthmus is too high.

³ 84th Annual Report: Panama Railroad Company (1933), p. 32. This figure includes manufacturing expenses.

In 1933 warehousing costs were 50 per cent higher than in 1928.⁴ Depreciation charges today are 40 per cent higher than in 1925; this represents a charge of \$164,000 per annum, obviously a large item of expense to be carried by commissary operations. Steps have already been taken to reduce these items of fixed and operating expense.

Under the direction of the Engineer of Maintenance there has been made a study of commissary capitalization and depreciation with the idea in mind that the capital accounts of certain obsolete or overbuilt properties may have to be written down. For example, the abattoir at Mount Hope represents a large capital investment which is lying practically idle while depreciation charges continue to mount. It was built during the war and served an indispensable purpose at that time. In recent years, however, it would have been foolish to slaughter cattle on the Isthmus when prices in the United States are so low and when refrigeration has been improved so greatly. Needless to say, it is poor business to carry this capital investment without any prospect for future use. Another example of obsolete or overbuilt properties may be found in the ice plants. With cheap electricity available and with the widespread introduction of electric refrigerators, the Balboa ice-manufacturing plant has been closed down entirely and an even larger unit at Mount Hope is now operated far below capacity. There are also minor instances in which a reduction of commissary capitalization appears to be necessary either because of non-use or because existing facilities plainly exceed present or prospective demands. Tentative conclusions reached by Canal Zone investigators indicate that the conversion of existing depreciation accounts plus a certain amount of writing-off to profit and loss would justify the reduction of commissary capital to the extent of possibly \$750,000. This would mean a considerable advantage so far as fixed charges are concerned.

The most beneficial change in commissary management dur-

• It needs to be recognized, of course, that prices had declined and that the tonnage handled was less.

ing recent years has probably been the reorganization of accounting methods in order to place each unit of commissary operations, including manufacturing plants and wholesale divisions, on its own financial foundation. The reorganization took effect in July, 1933, and beneficial results have already begun to appear. Retail units are no longer required to carry expenses which properly belong elsewhere. In case a unit cannot pay its own way, it will not be given artificial respiration but, instead, will be closed down. Each productive service within the Commissary Division is expected to make 3 per cent on the turnover; and the business as a whole, in due course of time, is not expected to exceed a 3 per cent return on the capital investment. These changes have been brought about without increasing the accounting expense, and the commissary management is now in a position to know exactly where it stands financially at the end of each month. Finally, differentials in wholesale price to different parties have been entirely discontinued. Now that unit costs can be ascertained with certainty and now that uniform prices are the rule, it is hoped that the Army's business with the Commissary Division will be brought back, thereby increasing the volume of commissary sales and giving the Army a better price at the same time.

Criticisms of having to wait in line for service at retail commissaries are well authenticated. Although there is a possibility that the Commissary Division is overstaffed in some departments, this certainly would not appear to be true of the retail stores. In the Commissary Division as a whole there has been a reduction in staff of 16 per cent during the last five years; the percentage of reduction was greater in the case of wholesale and manufacturing units than in the retail stores.

One of the principal causes of waiting is that commissary coupon books are issued six times a month, and during the first few days thereafter business in the commissaries usually leads to congestion. Then, too, most customers wish to shop at the same hours of the day, namely, in the early morning when it is cool and in the afternoon after working hours. Incidentally, no sales are made in coin or currency, and charging privileges are rather strictly limited. The use of scrip is so universal that some employees facetiously refer to the Canal Zone as "Little Russia."

Commissary clerks on the average are as alert and as anxious to please as in chain stores in the United States. The management has never adopted a policy of paying bonuses for sales, and so long as the service is satisfactory and profits are not the consideration, this is probably the wiser policy. The number of cases in which patrons have found offense in dealing with "silver" employees, simply because they are colored employees, is probably very few, because they appear to be a satisfactory type as a group.

PERSONNEL PROBLEMS OF COMMISSARY MANAGEMENT

The most important problem in relation to commissary management is whether the Commissary Division should remain a subordinate branch of the Supply Department. Here we have the major merchandising unit on the Isthmus, highly ramified in its services and organization, under the supervision of a headquarters department, which, in its other branches and in its original purpose, is not a sales organization at all. We shall discuss the possible reorganization of the Commissary Division, constituting one of the principal problems of overhead organization and control, in a later chapter.⁵

The General Manager of the Commissary Division and the store managers appear to have less authority over their employees than is needed in running a commercial establishment such as the commissaries. Only brief mention will be made of personnel problems here, however, because the subject must be discussed much more fully in the chapter dealing with personnel. In the case of classified positions, appointments must be made from the three highest on the Civil Service list maintained in the Executive Department of The Panama Canal. Instances have occurred where the first fifteen persons, or more, on the

^s See infra, pp. 230-33.

list had either obtained other positions, had moved away, or were unavailable for some other reason. Within the last three years, in pursuance of the Welch Classification Act, commissary positions have been classified according to federal specifications. In the appointments to unclassified positions the same routine of choosing from lengthy lists must be gone through. It is almost impossible to remove a man for ordinary incompetence or because better men are available. All removals and most cases of disciplinary action are subject to immediate review by the officials at Balboa Heights. In the commissaries, as in other departments, it sometimes becomes necessary to resort to subterfuges-such as calling inability "insubordination"in order really to get rid of an undesirable employee. Promotion according to seniority is the rule, and it is usually difficult to make exceptions. However, in the Commissary Division there are several cases of employees comparatively young in the service who, on the basis of merit, have been advanced ahead of older men to important positions.

The writer is a sincere champion of Civil Service, but he is convinced that the merit system's usefulness is limited. Experience seems to show that the Civil Service system with its present rigidities and shortcomings is hardly applicable, without modification, to the successful conduct of public commercial undertakings. The General Manager must be really in a position to control; his voice must command obedience and respect. It is destructive of efficiency for employees to feel that they can appeal to Balboa Heights over the head of the manager in almost every instance. On the other hand, it is a safeguard against arbitrary and prejudiced actions. One of the greatest defects of Canal Zone administration, as we shall argue later, is that operating officials are not given sufficient freedom af action, enough opportunity to experiment, and adequate release from paper-workers at Balboa Heights.

Another major problem of commissary operation is the employment of over five times more "silver" employees than of "gold" employees. At the present time there are 1,014 colored

employees, mostly British West Indian, and only 196 white employees. The latter are American citizens who are engaged in supervisory positions. The Special Panama Canal Commission of 1921 recommended that white employees be replaced wherever possible, both as an economy measure and because white men, they said, cannot stand the tropics.⁶ In their conclusion and in their reasons the commission now appears open to attack. As a general proposition it may be said that Americans should be given positions in the Canal Zone whenever the work is not patently injurious to health and vitality, where the same kind of work is customarily done by white employees in the United States, and where increased efficiency will result. The North American can live in the tropics, although the climate takes its toll after several years. But in view of the present and perennial unemployment in the United States, it is evident that, assuming the tests mentioned above, positions in the Canal Zone should be provided for American citizens.

The effect of a drastic replacement of colored employees by white men would undoubtedly be serious. For West Indian employees who wait on counters and do office work, \$55 per month is considered a relatively high wage. If present Canal Zone scales are followed, white employees would probably average \$150 a month for this type of work. It is estimated that if suggested principles of replacing "silver" with "gold" employees are carried out in the branches of the commissary affected, the differential represented in increased labor costs would amount to \$500,000-\$600,000 a year. That a hypothetical wage of \$150 per month is not too high is indicated by the fact that meat-cutters in the commissaries receive a basic wage of \$241 a month.

There is clearly ample justification for giving present positions to Americans in many cases at least. For example, office work in the commissaries is done by West Indian employees in a majority of cases. As a rule they are conscientious and

⁶ Report: Special Panama Canal Commission of 1921 (Government Printing Office, 1922).

capable, but they are not adaptable. They learn to do a given job, but their ability stops there. Not only would Americans prove more valuable in the organization, but this is obviously one type of work which certainly would not have a deleterious effect upon the employee.

PURCHASING OPERATIONS

For the price and quality of the merchandise sold in the commissaries, the Canal Zone population is largely dependent upon the work of the Purchasing Agent of the Panama Railroad Company in New York City. This work, under the immediate supervision of the Vice-President, has been carried on from New York for at least fifty years. With more than thirty thousand Canal Zone purchasers to please, and with orders amounting to more than five million dollars annually, the purchasing unit of the Panama Railroad Company may be compared to the buying department of a large department store.

The business of the Purchasing Agent has been performed with great success, creating a model for governmental and private procurement agencies. At the present time the purchasing department is operated on an annual expenditure of \$54,000, representing an expense of $1\frac{1}{3}$ per cent on the total volume of purchases; and at times when the volume of business has been greater, this item has been as low as 1 per cent.

The purchasing department of the Panama Railroad Company, unlike the purchasing agency of The Panama Canal and other governmental establishments, is not tied down by stringent regulations relative to the acceptance of the lowest bid or by other restrictions imposed by purchasing and financial officials of the general government. This is a very great advantage, particularly when the purchases must be made to please prospective consumers rather than merely to be used for construction and maintenance. The first rule followed by the New York office is emphasis upon quality and attractiveness, while price is important but secondary. If one bid on a meat contract is one-half cent cheaper, but the produce is of poorer quality than that of the next higher, the latter proposition obviously should be and actually is accepted. Fortunate it is, therefore, that purchases for Canal Zone commissaries can be handled under the greater freedom permitted government-owned corporations rather than under the strict regulations of the federal purchasing laws. Greater freedom in purchasing operations is one of the important advantages of government-owned corporations.

The requisitions for commissary supplies are controlled by the General Manager's office at Mount Hope. Memoranda orders for requisitions to be placed are made up by the buyers in the various warehouses and are then sent to the General Manager's office for approval, compilation, recording, and forwarding. Hence, in a sense the purchasing department in New York is simply an agency of the Commissary Division in the Canal Zone; the Purchasing Agent fulfils instructions as faithfully as possible, assuming the initiative regarding prospective purchases in relatively few cases.

There is close and constant communication by cable, radio, and air mail, however, so that the co-operation is constant and prompt. The present Purchasing Agent has remarkable "market sense," and if he is convinced that a large order should be placed at a given time, he immediately communicates this advice to the Isthmus. Milk, flour, cottonseed oil, and apples are bought in carload lots. Generally, however, the New York office does not make a practice of awarding blanket orders, and a stores system is not maintained in the United States; all purchases are shipped for storage in the Canal Zone. When time contracts are awarded, the Panama Railroad Company always secures the right to demand delivery as needed and to be given the advantage of any price change in its favor.

In recent years an important part of the purchasing activities has been conducted by an agent stationed in San Francisco. As a result of west-coast operations, remarkable success has been experienced in the purchase of eggs and fresh vegetables. This market is being further explored with the possibility of increasing the number of Pacific Coast deliveries. Formerly, a branch of the purchasing service was maintained in the New Orleans region, but it was discontinued about a year ago. For some time there has been outside criticism because of the fact that the corporation's purchasing operations have been almost wholly confined to the New York region. The possibilities of tapping other markets continue to be studied. Although present federal legislation forbids purchase outside the country for use by government services, the commissaries are permitted to purchase a limited number of articles abroad for resale. Hence, the activities of the Commissary Division reach out, for commodities not easily obtained in the States, to agents in Great Britain, Europe, China, and many parts of the world.

Being free from federal restrictions, the Railroad's purchasing agent is not forced to buy along hard-and-fast lines. Federal specifications are used when possible, but they need not be. On purchases of \$1,000 or over there must be competition; on items of \$10,000 or more the approval of the Vice-President must be secured. Ordinarily, bids are taken on items amounting to only \$400.

Anybody and everybody cannot bid. Invitations to bid are sent out according to a list which the purchasing department has made up over a long period of years; this list is added to, revised, and kept up to date. The telephone is used on rush orders. The number of bids asked for varies. For example, on flour the average is 30, while on other commodities the average is 10; in the case of a patented article possibly only one invitation may be made.

Cash discounts secured by the department more than maintain the purchasing organization. There is no fixed discount on orders; if no discount is stated when the bid is proffered, the Panama Railroad Company goes out for the best discount it can get. Only a few of the most powerful companies refuse discounts. Cash discounts ranging from 2 to 8 per cent are secured in almost every case. If an opportunity is missed, the Vice-President raises the roof. Owing to close co-operation between the Purchasing Agent, the Treasurer, and the Auditor in the New York office, all of whom pass upon discounts, payments for purchases are made with great dispatch. The New York office of the Panama Railroad Company, contrary to people's ideas concerning government departments, is as aggressive and as hard-boiled as its neighbors, the private firms, along the Battery.

In addition to the purchasing operations described above, the General Purchasing Agent of The Panama Canal in Washington buys large quantities of supplies on account of Canal Zone activities. At the present time these expenditures average around \$3,500,000 a year, while during construction days they amounted to \$6,000,000-\$10,000,000.

It might appear that appreciable economies would be possible if the purchasing agencies in New York and Washington were combined. The overhead organization could possibly be reduced, and there should be bargaining advantages in having eight or nine millions of purchasing power in one unit rather than in two organizations. However, when it is recognized that the type of purchases in the two cases are entirely different, the reasons for amalgamation do not seem so convincing; commissary purchasing is department-store buying, while Panama Canal procurement is primarily for construction and maintenance. Each is a large-sized job in itself, and each is a specialized task. If the New York office of the corporation were to take over all purchasing responsibilities, it would undoubtedly mean that buying for discriminating commissary customers would suffer as a result.

The Washington office of The Panama Canal, operating under federal specifications, is admirably adapted to the type of purchasing for which it was created, i.e., the buying of cement, steel, and maintenance supplies in large quantities. As a federal agency it is enabled to use the facilities of the General Supply Committee for quantity purchases, as well as the Post-Office (for stationery, etc.), the Navy (for fuel oil), and other government departments. All requisitions come from the Canal Zone, and so far as the Washington office is concerned no distinction is made between orders for the account of The Panama Canal and those which will be paid for by the Panama Railroad Company. United States Standard Specifications must be used unless, in exceptional cases, some valid reason for not doing so arises.

The Washington purchasing is subject to the regulations laid down by the Federal Specifications Board, and it comes under the general oversight of the Director of Procurement and the Controller-General of the United States. Under this system it is almost impossible to avoid the requirement concerning acceptance of the lowest bid. As a general rule this is a desirable safeguard, and it usually results in no hardships. However, the requirement concerning the lowest bid does work out unsatisfactorily in some cases, such as occasionally in the purchase of electrical machinery, air hammers, parts of Diesel engines, and other technical contrivances.

Unlike Panama Railroad purchasing, no increase or decrease clause can be put in a contract; the administration gambles on the future price and buys at the price as current. Unlike commissary purchasing, too, there is usually no haste in buying, and there is no necessity for seasonal buying. There are important differences in purchasing operations as a government department and under the more flexible system of the government-owned corporation; considering the difference in requirements, the existing separation between commissary purchasing and general purchasing is probably a desirable division of responsibility.

PRODUCTION UNITS

Either in direct connection with the work of the Commissary Division or under the aegis of the Supply Department generally, several important manufacturing and productive units have grown up which go a long way toward supplying the demands of the Canal-Zoners for commodities which are perishable or which can be produced locally. These two criteria have been the controlling principles in determining whether manufacturing operations should be begun in the Canal Zone; but in addition to these factors, consideration of convenience, freshness, and availability of supply in case of war-time emergency have also played a determining rôle. The war period gave a great impetus to Canal Zone manufacturing operations and brought home with striking force to the administration the necessity of being prepared to sustain the community in case of interference with the channels of communication to the States. The reason that the size of the Canal Zone population has been kept as low as possible, and one of the principal reasons that retired employees have not been permitted to remain in the Zone, is that the Isthmian administration must not be burdened with unnecessary problems of government and subsistence in case of a conversion from peace to war-time status.

In 1933 the total value of the output from the laundry, the coffee-roasting plant, ice manufacture, the ice-cream and milkbottling plant, the sausage factory and pickling department, the industrial laboratory, the bakery, and the abattoir was 1,506,092. In 1930, when retail sales were higher, the corresponding figure was 2,318,030. It is apparent that these operations are of real significance, and on the whole they appear to be very successfully managed.

The largest manufacturing unit in the Mount Hope wholesale supply building is the bakery. In 1933 this establishment produced more than seven million loaves and other bakery products, having a total value of \$286,842. All phases of the business are operated with the latest labor-saving machinery, and an average of three thousand pan-loaves per hour may be turned out. At the present time a fifteen-ounce loaf of bread, containing a skim-milk content, is sold at retail for four cents. Bakery operations are clearly one of the most necessary and also one of the most satisfactory branches of the Canal Zone's manufacturing activities.

The industrial laboratory has become the most profitable as well as the most progressive of the productive units connected with the Commissary Division. It produces toilet articles, household medical supplies, condiments, and soft drinks for sale in retail commissaries. The guiding principle here is to manufacture articles which in the United States are sold at excessive prices. Under the direction of a first-rate manufacturing chemist, the equivalent of widely advertised products is produced and then labeled in a distinctive manner in order to avoid any conflicts with patent rights. These local products have proved very popular and are usually much less expensive than nationally advertised brands. In 1933 the value of the industrial laboratory's output was about a quarter of a million dollars.

The work of the abattoir has been practically discontinued. Commenced in 1915 as a war-time subsistence measure, cattleraising and meat-slaughtering proved invaluable, and they have been important since then as a reserve weapon to control outside prices. In 1933 the value of the abattoir's output still amounted to \$124,465, but two years prior to this the corresponding figure was \$640,918. During the war the business approached the million-dollar mark. The present capital investment in the abattoir stands at \$148,954, representing a writingdown of the original capital of over \$93,000.

During the war a large investment in the cattle industry was made, representing a total investment of \$1,205,032. The present pasture facilities are now practically unused, owing to the fact that a satisfactory supply of beef has been obtainable so cheaply outside of the Canal Zone in recent years. At the end of the fiscal year 1933 all remaining cattle had been disposed of, but pasturages are being maintained in case world-prices on meat skyrocket or in case of war-time emergency. To the end of the calendar year of 1920, based upon the retail price differential between States and native beef during the first five years of operation, it is computed that there was a saving on meat purchases to the government and its employees of approximately \$7,000,000. The capital charge on the cattle industry has been reduced by writing off from time to time to the profit-andloss account of the cattle-industry division and to the Panama Railroad general profit-and-loss account, until at the end of the fiscal year 1933 the capital account stood at only \$183,930.

The record of the dairy farm has been one of increasing success. Between 1920 and 1933 the number of milk-producing cows has remained about the same, 350, but output has increased from a little over 150 gallons a day to 700 gallons a day. In July, 1925, 4,822 gallons of milk were being produced, while in July, 1033, output had been increased to 18,357 gallons, and in January, 1934, to 22,490 gallons. This remarkable record is attributed to the constant care of an expert veterinarian and to the fixing of a Holstein-Jersey strain which seems to be particularly adapted to the tropics. The average production per cow is two gallons a day. The butter-fat content in the milk is maintained at about 4 per cent. During the past fiscal year the wholesale price of milk has been reduced from 80 cents to 50 cents a gallon, allowing a profit in 1933 of \$12,419. The retail price per quart is 15 cents. In four years milk consumption has increased from 558,629 quarts annually to 841,600 quarts annually. In 1931 the ice-cream and milk-bottling plant did a net business of over a quarter of a million dollars.

The plantations, on which vegetables and tropical fruits are grown, have not been operated directly by the Supply Department for the last five or six years. Some of them were turned over to contractors as long as twelve years ago. In 1933 the Panama Railroad Company's profit from this source was only \$1,053.

The cattle industry, the dairy farms, and the plantations, it should be observed, are not under the jurisdiction of the Commissary Division, but the heads of these units report directly to the Assistant Chief Quartermaster.

The Ancon Laundry, which is owned by the Panama Railroad Company, does a large annual business for Canal Zone residents, the Army and Navy, The Panama Canal, the Panama Railroad, and steamships. This is one of the productive units which comes under the supervision of the General Manager of the Commissary Division. In 1933 it handled over six and one-half million pieces. The laundry is operated by modern machinery, and it does very satisfactory work.

HOTEL ENTERPRISES

We have now referred to all of the business enterprises owned by the Panama Railroad and coming under the supervision of the Supply Department—with the exception of the hotels Tivoli and Washington. These hostelries, the only American ones on the Isthmus, are under general supervision of the Assistant Chief Quartermaster, to whom the respective managers report. Both hotels depend almost entirely upon the tourist trade, and as a result their prices for rooms and meals are out of the reach of most persons who expect to stay in the Canal Zone any length of time. Yet both hotels are attractive and comfortable; they command fine views, the Washington facing the Atlantic at Colon and the Tivoli overlooking the Pacific at Ancon; and their cuisine is excellent. In comparison with prices charged by tourist hotels in the British West Indies their rates are reasonable indeed, the minimum price for a single room being four dollars a day during the winter season.

During the past few years the Panama Railroad Company has sustained deficits on the operations of both hotels; on the Tivoli the net loss in 1933 was \$60,518 and on the Washington \$43,368—a rather serious total to be borne by Railroad profits from other sources. The total loss on the Hotel Washington during the years 1917-33 amounted to \$124,897; but losses did not begin to occur until 1030, whereas small annual profits were made prior to that time. The losses on the Hotel Tivoli, on the other hand, totaled \$190,833 in four years. In explanation of this loss, it should be said that the hotel was not taken over by the Railroad from the Canal until 1929 and that thereafter annual "rental" payments of \$30,000 were charged against operating expenses in order to amortize the balance of the Canal's investment in the hotel. Now that these payments have been completed the hotel is making a better financial showing. The resulting financial set-up is anomalous. The original investment is still owned by The Panama Canal and on it the Railroad pays an annual rental, while in addition the Panama Railroad has a capital investment in the hotel of \$41,525, represented by equipment.

With the improvement in canal transits in 1933-34 and with the increase in tourist travel, both hotels have reduced their prospective deficits. The repeal of prohibition in the Canal Zone will also mean a great financial benefit to the hotels, particularly to the Tivoli. During the dry era no liquor could be served in the Tivoli, while at the Washington, which is just outside the Canal Zone, liquor could be sent out for, on the purchaser's responsibility, but could not be dispensed by the hotel. The result was that a great deal of business was diverted to Panama. Another means of reducing hotel deficits that is being considered is the possibility of converting the large barnlike dining-room of the Tivoli Hotel into a coffee shop. If the tourist traffic and the transient trade of commercial travelers return to their former level, the hotels may be restored to a sound financial condition. On the other hand, if projected plans for building a large tourist hotel in Panama City materialize, it might be necessary to close the Tivoli.

As the charm of the Canal Zone and of the Panamanian region generally becomes more widely appreciated in the United States, a growing tourist business may be expected, bringing direct benefit to the hotels and to other Railroad properties. The Panama Railroad Company should adopt a unified and aggressive organization to publicize and promote its transportation and hotel facilities. It is recommended that serious consideration be given to the possibility of offering pension rates and term rates for persons who desire to stay in Canal Zone hotels for vacation periods. The Panama Railroad Company can perform a real service for citizens of the United States by making available and giving publicity to the vacation possibilities afforded by beautiful Panama. The idea should be promoted that the Canal Zone does not exist exclusively for the local residents and the service men on tour of duty but that American citizens will find a development of which they may well be proud and surroundings in which they are sure to enjoy themselves. This movement is already under way by means of co-operation with the travel agencies. It can be furthered by placing the hotels under a person trained in hotel management and by giving the hotel managers more liberty for initiative and more freedom from Supply Department regulations. At present the managers clearly do not have enough discretion. If it were entirely up to them to increase business, it is believed that methods could be found of cutting down the overhead and of improving the service.

CONCLUSIONS

All things considered, the business services carried on in the Canal Zone are a credit to government enterprise. In the large range of manufacturing and wholesale activities which have grown up on the Isthmus there have been several instances of conspicuous success as a result of progressive management. Mistakes have been made, but in most cases they could not have been seen in advance and probably would have been made by private businesses as well.

There are certain commendable features of commercial management in the Canal Zone. The first one is that quality is uniformly superior to that found in the general run of comparable private establishments. Everything must be of the best, from the original plant to the consumable commodity. Investments in buildings and equipment do not appear to be extravagant, although men representing private firms on the Isthmus usually say that they could build a satisfactory plant for less. But Canal Zone business enterprises give the impression of genuineness and permanence. A second advantage is price, which, even allowing for the tax and other differentials, is a clear indication of efficient management by the Canal Zone officials. In several cases there seems to be no doubt that prices could be lowered even more (i.e., profits as earned at present could be reduced), but such proposals always bring forth objections from private interests. The sale of perfume in the commissaries and the retail price of electricity in the Canal Zone are cases in point. Then, too, service is maintained at a generally satisfactory level. There are no high-powered business methods in evidence, but reliability and common courtesy may be depended upon. Finally employees are exceptionally well treated in comparison with private industry.

The outstanding drawbacks of commercial management in the Canal Zone have been adverted to already. In the first place, operating units are not given enough independence, and executive heads are tied down by orders issuing from clerks and office workers; the result is that there is not so much unified control and experimentation as seems desirable. A second criticism is that men with business experience and with knowledge of the latest commercial practices are not recruited for the most important executive positions in the business units. Clerks and white-collar workers have been moved up to the top according to Civil Service progression and the mortality rate. Men of native business ability have been drawn out of the pack in some cases: a notable instance of this is the General Manager of the Commissary Division, who started as a Civil Service clerk on the Isthmus more than a generation ago and who appears to have developed the qualities which distinguish a successful business executive.

A final criticism may be made; the desires and attitudes of consumers are not given sufficient attention, or, to state it more accurately, the techniques which the business world uses in keeping customers satisfied have not been mastered by Canal Zone executives. As suggested above, most of the complaints concerning commissary operations are probably not deeprooted but petty; these attitudes can and should be changed. What is needed is not better service or cheaper prices necessarily, but better psychology-an improved public relations technique. Paid advertising inviting attention to the excellence of the commissary and inviting constructive criticisms might help to sweep aside accumulations of petty complaints. Use of the newspaper medium was employed for several years, and is said to have resulted in a better attitude on the part of the Canal-Zoners. It was discontinued when the merchants of Panama objected to avowed salesmanship. Serious attention should be given to the desirability of recommencing commis-

sary advertising, and other means of improving relations with customers should be studied. Several persons have suggested the possibility of establishing a self-service system in commissary grocery departments, such as are found in chain grocery stores in the United States. This move would involve a considerable expense, but it is suggested that the desirability of it be studied. There is no question but that women like to poke around grocery shelves.

The foundations of commercial management in the Canal Zone are firmly secured; all that is needed now are certain instrumentalities and amenities.

CHAPTER VII

FINANCIAL ADMINISTRATION

I N THE operation of the Panama Railroad's services, which have been analyzed in the last three chapters, as well as in the operation of The Panama Canal, the influence of the Auditor is all-pervasive. In him are combined all of the reins of financial control on the Isthmus. The Auditor is a Director of the Panama Railroad Company; he helps to formulate its policies as well as to see that they are carried out. Because of the set-up and powers of his office, the Auditor inevitably becomes the king-pin of the permanent bureaucracy, and at times his influence over detailed administration seems to be greater than the Governor's.

The organization of the financial machinery on the Isthmus is singular; it defies exact comparison and violates some of the most important of the accepted canons of financial management. On several occasions in recent years the fundamental set-up has been carefully studied by outside authorities, and certain important accounting changes have been made; the basic organization and theory of control remain unaltered, however, despite strong criticisms which were made of the existing scheme as long ago as 1922.

It will be our purpose, in the present chapter, to analyze the underlying ideas of financial organization and control, to deal with certain financial policies having an important bearing upon administration, and to consider briefly some of the results of existing financial practices. We approach the problem from the standpoint of general administration rather than from the purely technical standpoint of the accountant or of the efficiency expert; the present examination differs in this respect from surveys of financial administration which have been made by outside agencies in the past.

EXISTING ORGANIZATION AND CONTROL

Referring to the work of his own department, the Acting Auditor of The Panama Canal once said, "There is probably no other department of government or any company or individual with such a variety of operations carried on under one administration and one accounting organization." The Accounting Department, concluded the Special Panama Canal Commission of 1921, "embraces too many unrelated and illogical functions." The varied functions performed by the Accounting Department are best explained by analyzing the manifold duties of the Auditor, the head of the entire financial establishment.

The duties of the head of the combined financial services encompass considerably more than the term "Auditor" implies. The office might more properly be called "Controller." Under the existing organization the Auditor is budget director, treasurer, appropriation officer, auditor, rate-maker, claim-adjuster, time clerk, time-inspector, property custodian, bonding agent, and contract-awarder. Unlike ordinary business and government establishments, the Treasurer's functions and the Auditor's duties are combined. This is the principal difference, but in addition all the other responsibilities just mentioned have been gradually collected by a process of accretion. "The Auditor performs very few of the real functions of an auditor," concluded the 1921 commission, "but is rather a sort of general manager of the Canal administration, without having the name and without having a proper organization to perform those functions."2

The Auditor, with the Governor, is the principal link between Panama Canal finances and the government of the United States. As liaison officer to the appropriations committee of Congress, the Controller-General, and the Director of the

^r It is suggested that, in case the writer's recommendations concerning financial organization are not adopted, the title of the Auditor be changed to that of Controller and that his functions be made to parallel as closely as possible those of the controller in a modern industrial organization.

² Report: Special Panama Canal Commission, 1921 (Washington: U.S. Government Printing Office, 1922), p. 14.

Bureau of the Budget, he acquires much of his importance in general administration. As budget officer of The Panama Canal, the Auditor is charged with the preparation of the annual estimates for appropriations for the operation and maintenance, sanitation, and civil government of the Panama Canal and the Canal Zone. He prepares statements for the Bureau of the Budget concerning the status of Panama Canal appropriations and their expenditure and supervises the collection of all funds from all sources, whether repayable to the appropriations, to the accounts of the Panama Railroad Company, or to the United States Treasury as miscellaneous receipts.

In the reply made to the Personnel Classification Board the following statement concerning the Auditor's duties was made: "The duties of the Auditor are primarily in connection with the estimates, appropriations, expenditure, and collection of funds, but since there is practically nothing done in connection with the operation and maintenance, sanitation, and civil government of the Panama Canal and Canal Zone which does not involve funds in some way or other, practically everything passes over his desk, and in matters of operation and policy his opinion, advice, or recommendation is sought by the Governor."

This states the case mildly. Governors are in office only four years, while Auditors hold on indefinitely. The Special Panama Canal Commission of 1921 stated a commonly accepted view of the Auditor's real powers in these words: "While technically responsible to the Governor, as a matter of fact he dictates the policy of every business operation, fixes prices, rates, service charges, allocations of labor, expense, and overhead. In brief, he performs every function of an executive but without responsibility therefor." To this statement Governor Morrow replied:

As to the criticism of the executive functions of the Auditor, these are of exactly the same nature as the criticisms that have been advanced against the new office of Director of the Budget, but on a smaller scale and with much less force, as the Governor is far more able to give individual attention to protests from his division heads than would be the President.

The Auditor has no executive functions except in his own division. Many of his acts appear so, but none of them are performed without either the written or oral approval of the Governor. There is bound to be a certain amount of vexation on the part of other division heads (who, by the way, sometimes obtain the decision), but these are only signs of health, and give proof of the fact that the control is where it belongs, in the hands of the Governor.³

Nevertheless, the view expressed by the 1921 commission appears to be widely and firmly held today. Considering the way in which the financial power is monopolized, and considering the other factors which have been mentioned, the Auditor could not help but become the power behind the throne.

Two other offices in the Canal-Railroad Establishment maintain accounting establishments, but both of them are located in the United States. In the New York office of the Panama Railroad Company there are two departments dealing with finances, the Treasurer and the Auditor. This division of responsibility wherein one official is responsible for formulating financial policy and for keeping accounts while another is responsible for seeing that said policies are carried out and for conducting the audit—this system is the traditional practice in business organization, and most people would say that nothing short of it will suffice.

The work of the Treasurer in the New York office is largely concerned with the investments and securities. In 1933, \$467,-780, or over one-half of the net income of the company for the fiscal year, was derived from income credits. The Treasurer's duties include the handling of securities, interest, vouchers, insurance, and payments for purchasing. A committee of three Directors, with the Treasurer acting as secretary thereof, is the custodian of the company's securities.

The Auditor of the Panama Railroad deals primarily with steamship accounts and he is also responsible for preparing the company's consolidated balance sheet. The invoices for commissary purchases are sent to the Canal Zone and the account-

3 Ibid., p. 42.

ing work is done there. The company tries to follow the Interstate Commerce Commission regulations regarding accounts, but the Commission never investigates the company. At the close of each fiscal year all figures and statistics relating to the company's operations are sent to the New York office from the Canal Zone and from these data the consolidated balance sheet and the *Annual Report* are prepared. For many years the accounts of the company have been audited by an independent firm of outstanding reputation. Needless to say, this is ordinary commercial practice. Three times a year representatives of Haskins and Sells of New York come in unexpectedly for a check-up on the Treasurer and on the securities; they also make an annual audit. The firm, of course, does not vouch for the accounts which are kept on the Isthmus and the detail of which is not available.

The accounting work in the Washington office is under the direction of an Assistant Auditor. He reports directly to the Chief of Office rather than to the Auditor on the Isthmus. The Washington accounts deal with purchasing operations conducted there and with the expense of running the local office. This work, like that in the Canal Zone, is subject to the periodic check-up of the Controller-General's department.

The Canal Zone services require the maintenance of three separate accounting offices. Concerning the expense involved in maintaining financial establishments in New York, Washington, and the Canal Zone, the commission of 1921 concluded that "this total outlay is out of all proportion to the volume of business done, and even under the present methods is susceptible to substantial reductions." In the last ten years the accounting force in the Canal Zone has been reduced from 233 to 182, and the annual expense has been brought down from \$556,000 to \$490,224. Economies have also been effected in New York and Washington. It is believed that all three establishments are needed and that the work of the New York and Washington offices is performed very efficiently and economically.

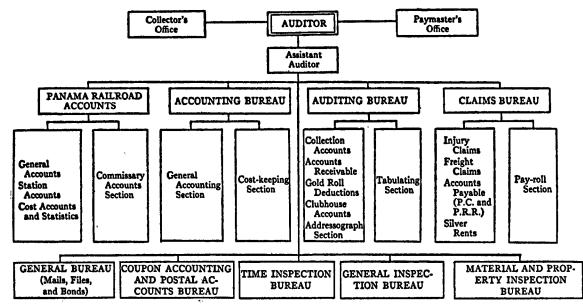
Compared with the ordinary business concern, there can be no doubt that the relative cost of operating the Accounting Department in the Canal Zone is high. But such a comparison is not accurate. If an analogy to the United States Steel Corporation is made, the Accounting Department of The Panama Canal will be found to fare much better. Allowing for the obvious differences in magnitude, such a comparison is appropriate. The steel company, like The Panama Canal, operates, and must maintain accounts for, large numbers of ancillary services such as railways, steamships, residences, grounds, sanitation, etc. The fairest comparison is to a hypothetical municipality of four thousand persons in which all services, including house repairs, the mowing of lawns, public entertainment, urban transportation, subsistence supplies, health services, mechanical repairs and even haircuts and chewing gum, are supplied by the government and accounted for by the financial department. Enormous accounting detail is the necessary result of Canal Zone paternalism. If improvements are to be made, they must be in organization and in method rather than in scope and in administrative expense.

The present Accounting Department on the Isthmus is the result of the merger of the Railroad's and Canal's accounting departments on the Isthmus in 1914. When this consolidation took place there was a reshuffling of positions, and the accounting work of the Railroad was added on to the Canal's business in a more or less intact form. Most of the Railroad's financial transactions today are handled by a distinct division in the Accounting Department dealing with Railroad accounts.

The existing organization of the Auditor's department is substantially as it was in 1914. Only minor changes have occurred, the underlying ideas of organization having withstood change and criticism. Chart III will help to make the situation clear. Under the Auditor and his immediate lieutenant, the Assistant Auditor, there are three main divisions, designated as the "auditor's office," the "paymaster's office," and the "collector's office." The Auditor himself is the head of the Ac-

CHART III

ACCOUNTING DEPARTMENT ON THE ISTHMUS



counting Department, is directly responsible for the auditor's office, and, in addition, exercises general supervision over the paymaster's and collector's offices.

At present the title "Auditor" is a misnomer. He neither audits, in the general acceptance of the term, nor exercises complete control over all of the duties ordinarily performed by an accounting department. The Auditor has no direct responsibility for the actual handling of funds, this function being performed respectively by the Collector, who takes in all receipts from the Canal-Railroad services, and the Paymaster, who disburses all moneys. The heads of these units are, in a sense, the Auditor's subordinates, but their divisions have not been integrally absorbed by the Accounting Department. They are appendages of the Accounting Department under the Auditor's supervision.

The auditor's office is divided into several bureaus, namely, accounting, audit, claims, railroad accounts, coupon accounting, general inspection, time inspection, property inspection, and general; these units are in addition to the paymaster's and collector's offices. It will be observed that both the accounting bureaus and the audit bureau are units within the auditor's office proper. Bureau heads deal respectively with canal, railroad, and coupon accounts, while a single bureau chief performs the auditing work for all divisions.

The General Inspection Bureau is the traveling auditor service of The Panama Canal and the Panama Railroad; field agents check up on the cash accounts and the transactions of the various collecting officers. The Time Inspection Bureau, which was established in the early days of canal construction, has become a detective force; it checks up on whether employees are at work, attempts to prevent padding of pay-roll accounts and investigates abuses of commissary privileges and smuggling into Panama. A bureau of the auditor's office also handles the inspection of the physical property and equipment belonging to, and on the accounts of, the Canal and the Railroad. The full responsibility for property is in the heads of departments, and the inspection force maintained by the Auditor is relatively small. The General Bureau handles mails, files, and employees' bonds—work which is done by the chief clerk of the auditor's department in most organizations. Finally, a separate bureau deals with all claims, either personal or property, brought against the Railroad or the Canal. It will be observed that several of the foregoing functions are performed by agencies other than the auditor's office in most undertakings.

The accounting organization is a highly centralized one. Departmental accounting has never been favored. In both the Mechanical Division and the Commissary Division there is an employee called "accountant," but in each case he is a member of the Auditor's staff rather than an employee of the department concerned. The creation of these positions has been found very advantageous. In the Mechanical Division the accounting officer keeps most of the detailed accounts; in handling a mass of invoices for repairs and construction, this work on the spot is imperative. Moreover, the accountant performs important functions in comparing and ascertaining charges. Similarly in the Commissary Division, a great deal of detail is taken care of by the departmental accountant. He is not permitted to do so much actual accounting work as the accountant in the Mechanical Division, however, but is confined to division of charges and cost-accounting. Nevertheless, he has been indirectly responsible for securing the reduction of accounting costs charged to the Commissary Division and has been instrumental in the establishment of modern statistical and costaccounting practices in the commissary. On the basis of these two outstanding successes, one is led to ask whether an extension of departmental accounting might not be desirable.

The functions of the paymaster's and the collector's offices are those which usually form the backbone of a treasurer's department. The principal difference is that separate organizations and separate officials do not usually collect and pay out funds. In the morning a member of the collector's force may collect cash receipts amounting to one thousand dollars from an operating service in the Canal Zone, and the same afternoon an equal amount may be delivered to the same person by the paymaster's office. A great deal of unnecessary effort appears to be wasted by this separation, and official and unofficial observers who have come in contact with it have been practically unanimous in their criticism of it. When the consolidation of Railroad-Canal accounting took place in 1914, the separation of the collector's and the paymaster's offices was decided upon; the alleged reason they were not joined is that the former heads of two services both wanted the same job in the unified organization. The problem of what might be done about combining the collector's office and the paymaster's office raises the whole question of reorganizing the entire financial administration.

REORGANIZATION OF FINANCIAL ORGANIZATION

Several years ago it was recommended that "there should be an entire reorganization of the office of auditor with a redistribution of the duties between the auditor and a treasurer." This proposal was not received sympathetically at that time. In rejecting the recommendation, Governor Morrow stated as follows:

Panama Canal auditing differs from both governmental auditing and business auditing and accounting partaking of the nature of both. It is difficult to mix two such different systems, and yet both are required. We must comply with the laws and regulations designed for the control of solely disbursing agencies, and yet handle business operations involving receipts and disbursements and profit and loss accounts. It required special legislation to establish the present system, relieving us of much detailed reporting. The system in vogue had the expert advice of an accountant, Mr. Francis Oakey, in 1914, and it has been modified and changed only as experience and changing conditions advised it. If it is defective (which I do not believe), it can be changed. But it is certain that the commission's recommendations will not result in any economy. rather the reverse; and I am convinced that the additional labor required after the separation from the Auditor of some of his work would not give returns commensurate with the expense, nor would the Governor be able to as closely control operations as he now does through centralization of practically all of this work under one head.4

4 Letter of Governor J. J. Morrow to Secretary of War Weeks, September 17, 1921.

The two principal objections which have been made to organizing Canal Zone financial administration along orthodox lines are, first, that a separation into two departments would mean additional expense, and, second, that unified responsibility would be lost. These arguments need to be examined and weighed against the reasons favoring a modern system. The separation of financial administration into a treasurer's department and an auditor's department would not necessarily mean increased expense; indeed, if accompanying changes which appear to be desirable were made part and parcel of the reorganization, the expense should be less. In the organization existing at present, accounting is a separate bureau from auditing; the basis of the complete separation already exists. It may be argued that there would be two salaries for heads of departments under the reorganization where there is only one now. This is true, but in each case the salary would probably be less. and with lessened responsibility the salary of the Assistant Auditor would probably be reduced. However, even if present salaries were maintained (and they probably should be), it is believed that the savings in other directions and the advantages of the division would offset the cost of paying a Treasurer many times over. The work of the collector's office and the paymaster's office would be consolidated and placed under the Treasurer; this reorganization alone would, it is believed, more than take care of the expense of separating the two financial functions.

In opposing the consolidation of the paymaster's and the collector's offices, Governor Morrow stated that the undoubted financial saving was unimportant compared to the check and countercheck of the existing system. This same argument applies to the larger check and countercheck in modern financial organization—the treasurer's department, which makes the budgets and keeps the books, and the auditor's office, which certifies to the correctness of all transactions and acts as general watchdog for the executive. Even if it cost more to separate accounting and auditing, it should be done as a matter of sound principle.

The second chief objection to the customary separation of financial functions is that the present unified responsibility of the Auditor would be diminished. Certainly the totality of the Auditor's powers-greater than any auditor's within the writer's knowledge-would be reduced. However, it is believed that real financial responsibility and the amount of protection furnished to the Governor would be increased. At the present time the same person who draws up financial policy also accounts for receipts and then audits his own books! The system is obviously wrong; if strong men had not held the position of Auditor, its defects probably would have been glaring. In other words, the caliber of man has made up for the lack of a real check contained in the system. Real accountability (which is the substance of responsibility) is less rather than greater under the present set-up. In the reorganized system the Treasurer would be the principal reliance so far as present and future policy is concerned; the Auditor would be the bulwark so far as honesty and efficiency are concerned. In this system there is specialization, a check and balance, two good heads in place of one. And responsibility is put where, in the last analysis, it belongs-on the Governor himself.

The most convincing reasons favoring the separation of financial functions are to be found in the advantages of a modern system. In the first place, there would be an auditing of accounts by a separate department of the organization; nothing short of this deserves to be called an audit. At present the outside audit is conducted every six months by agents of the Controller-General, who are sent down from Washington. Their work appears to be more or less of a routine character and is designed to assure only honesty and legality rather than modern accounting techniques. Nevertheless, it costs the Canal about four thousand dollars a year for this inspection. If an independent audit were maintained on the Isthmus, the periodic checkups might conceivably be made less frequently.

Another advantage of separating the Treasurer's work from that of the Auditor's is that greater specialization is possible.

After all, the Auditor is human. Even an extraordinary person cannot give his best advice when he is constantly swamped under a mass of detail relating to almost every conceivable subject and when many of his responsibilities are not those of auditor, as customarily interpreted. Under the proposed set-up the Treasurer would devote most of his time to budgets, appropriations, financial policy generally; he should be the Governor's principal reliance in matters relating to appropriations. The Auditor, on the other hand, would be the eyes and ears of the Governor; upon him would devolve the responsibility of seeing that all divisions of the work are performed honestly and efficiently. There appears to be no question that under the present cumbersome, complicated accounting organization the Auditor cannot possibly keep his finger on every unit of even his own office all of the time; specialization should increase the value of financial supervision to the Governor. This work has been done surprisingly well in the past, but the result is to be attributed to an Auditor of extraordinary ability rather than to the system. The suggested reorganization would not only mean more helpful specialization but it would result in better supervision and control.

No proposed alteration would be defensible which would have the result of diminishing the amount of reliance and responsibility the Governor is able to put on his financial advisers. There must be permanent officials upon whom the executives can lean, particularly while they are acquiring familiarity with their jobs. The guardian of the government's purse is obviously the keyman. But this does not mean that one man must monopolize all phases of the financial administration. Specialization, supervision, and responsibility are diminished thereby. Such a system inevitably gives too much authority to one man. He should not be the general manager of the organization. Imagine the auditor of a business organization being able to say that he, really, is the boss, rather than the general manager! In theory the Auditor of The Panama Canal does not have the last word on any subject; the Governor resolves all controversies. But when the totality of the Auditor's duties is so great, the practical result seems to vary from the theory. The division of the Auditor's office would vouchsafe the Governor as much or more assistance from the financial officials while at the same time it would remove the ground from the contention that the Auditor has too much power in administration. So long as there is doubt there is likely to be injury to morale, smoldering resentment among department heads, and less aggressiveness and independence on the part of operating executives than is desirable. True, if the auditor of an organization is not criticized, there is usually something wrong with him. It is believed that he would continue to be accused of czarist tendencies under the proposed reorganization but that the basic evidences giving rise to this accusation would have been removed.

In the suggested reorganization the Treasurer would be the budget official, the appropriation officer, the custodian of all funds, and the director of accounting operations. The work performed at present by the Collector and the Paymaster would form an integral part of the Treasurer's department. The work of paying and receiving should be consolidated under the same head. If it should be objected that the collection and disbursement of funds should be kept separate, it may be replied that this is the normal province of the Treasurer, that all of his employees will be bonded, and that the real safeguard is in separating the handling from the auditing of funds. Collectors are not auditors, and they assume no responsibility for the accuracy of the collections they make. Each department head is held responsible for his receipts, and the function of the collector is merely to assist him in making the remittance.

Under the reorganized system economies could probably be made in the work now performed by the Paymaster. At present each activity employing labor keeps its own time-roll, but employees of the paymaster's office make up and disburse the pay-rolls. There appears to be no reason why the whole responsibility should not be assumed by the particular department or service, subject, of course, to the Auditor's check-up.

The possibility of further departmentalizing accounting procedure has already been mentioned. The success of devolution in the Mechanical and the Commissary divisions should encourage further study of the advantages of reducing the present centralization. There is a widely held view that the present system of unified accounting is unnecessarily detailed and costly. For example, it is suggested that the great mass of commissary coupon accounting might be handled more advantageously in the department, instead of going through the complicated process of collection, mailing, and main-office handling. The detail of railway accounting might possibly be delegated to a departmental unit. These matters are practical questions requiring a great deal of study before reliable recommendations can be made. One thing seems clear: although a great deal of autonomy may be desirable in keeping certain accounts, the accounting work as a whole and all departmental accounting officers should report directly to the Treasurer.

The Auditor, under the suggested reorganization, would maintain a constant check on the Treasurer, control the legality and honesty of all financial transactions on the Isthmus, report to the Governor, the Secretary of War, and the Controller-General, prepare cost and statistical data, handle the bonding of employees, act as approving officer of contracts, and protect the property and interests of the Railroad-Canal establishment. It might be possible to combine the entire inspectional force and to reduce expenses thereby; separate bureaus for time, property, and general-inspection purposes appear to be unnecessary. Whether or not the Auditor should handle claims due to personal injuries and damage to property is subject to serious question. Although he must be concerned in these matters, the primary responsibility seems to be more properly in the legal department. But there is no legal department of the Railroad-Canal establishment;⁵ this omission should be rectified in a reorganization of overhead administration.

⁵ The Panama Railroad Company has an attorney in its employ in New York and also an attorney on the Isthmus. The Canal maintains no legal department of its own. On many important issues the Auditor acts as counsel.

Theoretically it might appear that there are reasons for recommending the separation of the financial administration of The Panama Canal and the Panama Railroad Company, At various times since the unification of their accounting departments in 1014 this proposal has been made. There is no question in the writer's mind that the present system is desirable and that separation would be a step backward. An administrative division would mean unnecessary duplication and expense, and it might lead to disagreements. The desirable solution of the problem seems to lie in the direction of departmental accountancy, to the extent suggested above. Then, too, an entire division dealing with railway and commissary accounts in the Auditor's department already exists as a distinct unit; this portion of the accounting expense properly chargeable to the Panama Railroad can be figured accurately. The present system of dividing the overhead between the Canal and the Railroad could be followed in case of any future change of financial organization. Each employee doing work for both the Canal and the Railroad is asked to keep track of the percentage of time spent on each during a given period. The results thus obtained are added to the pro rata share of executive and office expense. These computations are periodically reviewed. If the financial work were divided between the Treasurer's and the Auditor's departments, it is believed that greater economy and efficiency of internal administration could be brought about; the present unwieldy organization is too cumbersome to be supervised and directed as closely as it should be.

POLICIES AND PRACTICES

As Governor Morrow said in 1922, "Panama Canal auditing differs from both governmental auditing and business auditing and accounting, partaking of the nature of both." Whereas it has been only during the last ten years or so that Canal finance has tended definitely toward the standard of business accounting, the Panama Railroad Company has conducted its affairs along strictly commercial lines from the very beginning. Three main periods of Isthmian accounting policy may be distinguished. The original system was set up by Executive Order in 1914 and remained substantially unaltered until 1922; in that year, however, as a result of the recommendations made by the Special Panama Canal Commission, a basic change in accounts was made because of the establishment of a Canal capitalization for the first time; finally, as a result of a survey made by the Bureau of Efficiency in 1931, Isthmian accounts were further remodeled.

In the Executive Order establishing the present Accounting Department the purposes contemplated were "to furnish at any time full, complete, and correct information in regard to the status of appropriations made by Congress, the status of all other funds, and the amounts of net profits which are to be covered into the Treasury." This system fell far short of what Isthmian accounts actually reveal today, and needless to say, it did not measure up to what is expected of modern accounting systems. Almost twenty years passed by before the basic principles established in 1914 were thoroughly overhauled.

In the report of the 1921 commission it was stated that the only way to lay a sound financial foundation for The Panama Canal is "to establish a capitalization upon which the government ultimately expects an adequate return, and for this purpose what may be called the 'commercial value' of the Canal ought to be established." This recommendation was approved by the Secretary of War. The total commercial capitalization arrived at in 1922 was \$275,179,298, after writing off \$100,-997,602 to national-defense capital expenditures.⁶

When the representatives of the Bureau of Efficiency looked into Canal capitalization in 1931, they expressed great dissatisfaction with the theories that had been employed. As a result the amount written off to defense has already been reinstated, additions to the capital-investment account made from time to time are being added; deductions for withdrawals and retire-

⁶ Annual Report: Governor of The Panama Canal (1922), pp. 54, 67.

ments of capital assets are now taken into account; and capital interest subsequent to 1921 (marking the close of the construction and development period of the Panama Canal), while not included on the balance sheet, is considered as a statistical charge to operating expenses for comparison with net revenues.⁷ Based upon the foregoing principles the capital investment in the Panama Canal at the end of the fiscal year 1933 was \$539,200,059.

With reference to the system of accounts recommended and adopted in 1931, the Bureau of Efficiency said:

The proposed procedure embodies as far as practicable the principles and practices approved by the Interstate Commerce Commission and State boards regulating public utilities. Certain changes in the present system are suggested, principally in the capital accounts. For the most part the income accounts have been continued with only slight changes.

I believe that the new system of accounts will show the relationship of the capital investment and the revenues in their proper perspective and proportions and will prove of practical assistance in the administration of the affairs of the Canal.

Soon after the adoption of the Bureau of Efficiency's recommendations, the Chief Accountant of The Panama Canal, comparing business accounts with the revised system on the Isthmus, said:

It is realized that modern commercial balance sheets, especially those prepared by chartered accountants, usually embody a segregation of current assets and current liabilities, and apply accrued reserves to the reduction of their corresponding assets. These devices, however, are almost entirely in the interest of presenting the fiscal status of corporations in such manner as to readily disclose their eligibility to commercial credit, which is entirely outside of Canal requirements; therefore imitation of commercial balance sheets in these respects would seem pointless.

Congress has given Canal Zone officials far more financial freedom than the average government department receives. The Panama Canal is operated on an annual appropriation of about \$11,000,000, but this represents approximately only onefifth of the total financial operations. Sums which have been

7 Ibid. (1933), p. 120.

provided for in the estimates for (say) salaries can be advanced to business services for (say) materials; when the business enterprise earns an income for doing work for some other unit, or for some outside party, the account from which the appropriated sum was temporarily diverted is repaid.

Following the statement of the sum appropriated for the fiscal year there is always provision in the Congressional act for "expenditures and reinvestment" of sums received from income-producing services, with the additional stipulation that these sums need not be paid currently into the Treasury; however, "any net profits accruing from such business to The Panama Canal shall annually be covered into the Treasury of the United States." It is estimated that every dollar employed in Canal Zone services turns over at least five or six times during the fiscal year because of this system of operating on a revolving fund.

It has been the policy of The Panama Canal to convert as many services as possible into "Business Divisions." In some cases these units do all of their work for other divisions of the Canal-Railroad establishment or for employees thereof. Their accounts record a profit-and loss statement, interest on the investment being figured at 3 per cent.

The Governor of The Panama Canal is able to add to Canal Zone services and to the capital assets of existing enterprises without asking Congress for a specific appropriation. This is made possible by general powers given the Governor in acts of Congress. At the end of the appropriation statute relating to The Panama Canal there is an elastic clause which provides that funds may be spent "for such other expenses not in the United States as the Governor of The Panama Canal may deem necessary best to promote the maintenance and operation, sanitation, and civil government of the Panama Canal, all to be expended under the direction of the Governor. " This provision takes care of unforeseen emergencies. For example, if an extra tugboat is needed and there are funds available, the Governor may authorize the purchase.

The Panama Canal is able to build up reserves for capital expenditure without the necessity of going to Congress for an appropriation. This is accomplished by building up funded reserves in two accounts, one labeled "Reserve for Replacements" and the other "Reserve for Repairs." At the end of the fiscal year 1933 there was over four million dollars in the replacement account alone.

It has also been a policy of the Isthmian administration to finance capital investments by charging the outlay to operating expenses. A fairly recent example of this practice was the financing of expensive fuel-oil pipe-line installations in this way. The charging of capital improvements to operating expenses was first authorized about 1920. The policy caused some misgivings at the time, not because its legality was doubted, but in anticipation of criticisms relative to profit calculations. The practice is justified by Canal Zone officials, who point to the discretionary clauses in Congressional legislation permitting the Governor to spend Canal revenues as he deems best—the inference being that such authority justifies the overriding of the commonly accepted commercial process of determining net profits.

Several official agencies in Washington have attacked the methods employed by the Canal in financing certain improvements. The problem creates a dilemma. There can be no doubt that the Canal administration needs financial freedom and that part of the earnings should be put back into the business in the form of improvements. Congress, two thousand miles away, cannot be expected to see the desirability of every capital outlay justifiably desired by Canal Zone officials; it is natural that Congress should want a maximum of revenue and a minimum of expenditure. The Canal would soon become inefficient and unprogressive if it had to depend upon a specific appropriation of Congress for each of its financial needs. On the other hand, it is bad policy to discard time-tested practices relative to the building-up of capital improvements and the resulting computation of charges and profits. Under commercial accounting rules, capital improvements cannot be justifiably financed from current revenue. This dilemma is striking evidence of the advantage enjoyed by the government-owned Railroad corporation, and it raises the question which must be considered later, namely, whether The Panama Canal should not be incorporated by Congress.

The depreciation policy employed in Canal Zone accounting is difficult to understand, primarily because it is at variance with generally accepted ideas. Some months ago studies were begun on the Isthmus looking toward the clarification and modernization of existing practices. Depreciation and replacement are accounting concepts, which, in Canal accounts, appear to be used interchangeably, i.e., without differentiation. In ordinary practice depreciation is chargeable to operating expenses and is deductible before any profits are taken out; replacement charges, on the other hand, are taken out of earnings. No such clear-cut rule appears to be followed in Canal accounting. In some cases the actual costs of replacements and repairs are charged against the property and are accounted for as reserve charges; in such instances these amounts naturally are not duplicated as entries charged to operating expenses. Where no reserve allowances are made, however, the actual costs of repairs and replacements are charged to operating expenses. At times the reserve for replacement and the reserve for repairs are used interchangeably.

The policy of The Panama Canal is to earn an annual profit of 3 per cent on each revenue-producing service and to earn a return not exceeding the same percentage on the total capital outlay. In the case of the Panama Railroad Company the objective is to limit earnings on the commissaries to 3 per cent but to permit certain units to earn more; the company attempts to return a profit of 10 per cent on the share capital of \$7,-000,000 to the United States Treasury every year. The dividend history of the Panama Railroad since the government took it over in 1904 is a very gratifying one, as Table VIII shows. In addition, the capital investment, as has been said,

has been increased to \$35,390,896 by a conservative policy of plowing back a portion of the profits into the enterprise. This record is all the more impressive when it is added that the corporation has on hand a fund of \$8,142,930 for depreciation and replacement, in addition to a special fund of \$4,786,737 for the

TABLE VIII					
DIVIDEND HISTORY OF PANAMA RAILROAD COMPANY SINCE THE UNITED STATES GOVERNMENT ACQUIRED CONTROL					
No.		Shares	Per Cent		
120.	February	190568,981	5	\$	344,905
121.	August	1923	10		700,000 ·
122.	April	1924	5		350,000
123.	April	1925	5		350,000
124.	September	1925	5		350,000
125.	September	1926	5		350,000
126.	September	1927	5		350,000
127.	April	1928	5		350,000
128.	October	1928	5		350,000
129.	April	1929	5		350,000
130.	October	1929	5		350,000
131.	April	1930	5		350,000
132.	October	1930	5		350,000
133.	April	193170,000	> 5		350,000
134.	October	1931	5		350,000
135.	May	1932	5		350,000
136.	June	1932	40	2	2,800,000*
Total dividend					

* Special Madden Dam dividend.

construction of new steamers. The annual revenue from securities amounts to almost half a million dollars.

Since 1928 some of the securities of the Panama Railroad Company have not turned out so well, and this has led to a demand on the part of certain Congressmen that the company invest all of its funds in United States government bonds. In December, 1933, the securities in the reserve fund represented the following percentages to the total investment: railroads, 50 per cent; Federal Land banks, 29 per cent; governments, 19 per cent; and utilities, 2 per cent. The average interest on securities was 4.5 per cent. At the end of 1933 the value of security holdings in the Reserve Fund had depreciated from the original cost to the extent of \$844,534. The company's handling of investments in recent years is probably open to a certain amount of warranted criticism, but it is far above the average.

Another phase of the corporation's financial practice might also be improved. Reference is made to the accounting procedure which, in more than one instance, has permitted the company to maintain replacement reserves for equipment no longer in existence. This was done in the case of coal barges and colliers. So long as such idle funds exist, Congress could not be blamed if it were to make an occasional grab from the corporation's Reserve Fund. Both practices are objectionable.

The remaining problem relating to financial policy and practice is a highly controversial one and one that underlies most of the other phases of financial administration. The issue is whether the accounts of each business unit and the charges between different Canal Zone enterprises should be maintained with as strict accuracy as those of a private corporation or whether greater liberality should be taken with financial charges which are merely "bookkeeping entries," i.e., where the government of the United States pays the bills and takes the profits, anyway. The latter point of view appears to have gained headway in the Canal Zone during recent years, and for that reason it seems desirable to examine future policy in the light of the conflicting points of view. The two approaches to the problem, the strict and the liberal, are frequently referred to in memoranda originating in the Auditor's department as the "academic" and the "practical."

Underlying the liberal approach there is the view that every item entering into the cost of services which are paid for by outsiders, foreign ships, etc., must be accounted for very meticulously, while debits and credits between divisions which confine their operations to government departments and government personnel need not be dealt with so meticulously. Frequently it is argued that additional accounting would mean increased

accounting expense—and why add to overhead when it is "all in the government, anyhow"? True, the Panama Railroad is not compensated for carrying mails, but then it does not pay rent to the Canal on its administrative offices. This is a rather good example. How can the true results of operating the Canal Zone Post-Office be shown when transportation charges on the Isthmus are not taken into consideration? Why should the Panama Railroad be charged postage, and pay its pro rata share of handling mails and correspondence, if it is not entitled to revenue from transporting mails? Unless the Panama Railroad pays rent on offices owned by The Panama Canal its true overhead charges are not faithfully shown, and to that extent the financial operating results and profits are unreliable. It ^r does not suffice to say, as has been said in attempts to justify such omissions, that "it all averages out in the end." Congress should be asked to increase an appropriation even when it is known that the same amount will be paid to the Panama Railroad Company, which in turn will pay back the amount to the United States Treasury in the form of an annual dividend. The theory of "averaging out" is dangerous and unbusiness-like.

The view taken is not purist or even that of the hypercritical accountant. It is more practical than the so-called "practical" view espoused by Canal Zone financial officials. It is so insidiously easy to fall into the error of thinking that because things are being done for the government it is therefore not so necessary to be financially meticulous.

The basic position which should be taken in governmentoperated economic services is that the United States is the chief stockholder and owner but that all the individual properties are subsidiaries which must be run in as business-like a fashion as if they were private corporations. The various enterprises should not try to make profits from each other but should be content to supply services at cost plus a reasonable allowance for interest on the investment and replacements. At the same time it may be properly insisted that funds should be accounted for whenever one unit does work for another; in this

FINANCIAL ADMINISTRATION 155

matter they should be as assiduous and as hard-boiled as any private firm. Otherwise the efficiency of the management is difficult to gauge, the establishment of prices cannot be viewed with assurance, financial burdens are almost sure to be shifted improperly, and the profit showing becomes merely an estimate.

As a matter of fact, The Panama Canal keeps very complete accounting and statistical records; they are far superior to those of the ordinary government department, and they measure up favorably with those of comparable private industrial establishments. However, because of the exceptions to strict accountancy which do exist and because of the underlying attitudes which appear to have grown in recent years, this seems to be an appropriate time to think through basic principles and to frame more concise policies. However, the policies and methods of Canal Zone financial administration are superior to the financial organization; changes of a fundamental nature in organization and control are antecedent to other improvements.

CHAPTER VIII PERSONNEL MANAGEMENT

HIRTY years of construction and maintenance in the Canal Zone has produced a public service career, an institutional morale, and a personnel system which are distinctive and significant. The rigors of tropical work, particularly during construction days, drew a virile class of employees to the Isthmus. From the original "canal-diggers" (i.e., those who were employed during the construction period) the permanent heads and staffs of departments have been recruited. Characterized by an intense pride in the developments which they have brought about, the original ditch-diggers constitute a close fraternity. Those who have served the Canal twenty years or more constitute an Isthmian aristocracy.

No undertaking in the United States, either public or private, has probably been so free from dishonesty as has the Canal Zone development; nor is any group of people likely to be found which is more proud of its record or more jealous of its rights and privileges. Old-time employees are especially vigilant to prevent any form of partisanship or patronage from creeping into the Isthmus. Then, too, many of the original employees having adult children of their own are anxious and determined that vacancies in the Canal Zone establishments should be vouchsafed to their progeny. In the realization of this ambition they have been largely successful. Needless to say, the advent of the second generation has added strength and power to the ingrowing bureaucracy.

In the early days of canal construction the dangers from disease were so great and the conditions of life were so crude that wages which were considerably above corresponding rates in the United States had to be paid; in some cases the differentials represented an increment of 50–100 per cent in wages and salaries. Thrifty employees were able to save considerable sums of money; there were not many ways to spend the surplus over and above the cost of living. Moreover, the Canal officials realized that they must obtain and retain a permanent and contented class of employees. For this reason every manner of inducement was offered; commissary prices were low; at one time quarters were provided free of charge; generous vacation periods were allowed in order that trips might be made to the United States; ocean transportation was furnished at little or no charge; and the recreational needs of employees were taken care of.

The danger of infectious disease has been greatly reduced; the Canal Zone is now as sanitary and as safe as areas in the United States. As the result of progressive community developments, added to the natural advantages of the region, life on the Isthmus has been made exceedingly attractive. Gradually the prerogatives and emoluments of the original canal-diggers have been reduced to conform to changed conditions. The maximum level of remuneration has been fixed throughout the service at 25 per cent above that for corresponding grades in the United States. In justification of this differential it should be pointed out that the climate is injurious to health after a few years of service, that vacations in the United States are necessary and expensive, that the problem of the employee's adjusting himself to new surroundings is very difficult (and sometimes costly) after the employee's retirement, and that the Canal must vouchsafe a superior class of personnel because of its strategic importance and because the rest of the world will judge the government of the United States by this great international establishment. The latter point is particularly important. A superior type of employee must be kept in the Canal Zone, and any policy which would detract from that assurance in the future should be thoroughly discredited.

Two years after construction work commenced in 1904, the employees began the organization of labor unions among the large number of mechanically skilled employees naturally re-

quired on such an enterprise. Since that time, organized labor in the Canal Zone, centering its activities in the Metal Trades Council, has flourished to a far greater extent than have labor unions generally in the United States. Almost every policy and act of administration is influenced directly or indirectly by the organized employees. The labor-union organization has been given a semiofficial status, and today, indirectly, it occupies a position of great importance in personnel administration.

In the present chapter we shall be concerned not only with the caliber of the individual employee and with his remuneration and emoluments, but also with the adequacy of the official machinery for handling personnel problems. Has personnel management on the Isthmus kept pace with the growing demands of the Canal Zone services and with modern methods employed in the United States? What are the advantages and disadvantages of Civil Service regulations as applied to the management of public commercial undertakings? We must try to discover whether the Personnel Bureau gives life and tone to the Canal Zone enterprises or whether its work is stereotyped and perfunctory. No organization can be expected to rise higher than its personnel. How are recruitment, efficiency rating, promotions, discipline, salaries, dismissals, and retirements controlled by the Canal Zone's Personnel Bureau, and what type of leadership and morale are produced thereby?

CONTROL OVER PERSONNEL MATTERS

Unlike the personnel organization in most establishments, the Personnel Bureau is only one of several subordinate divisions within the Executive Secretary's department. It has occupied this position ever since the administrative organization was established in 1914. Perhaps it is because of this fact that its work has become almost entirely routine, relating primarily to records. Decisions involving controversy and judgment have been retained by the Governor or devolved upon special boards dealing with wages, salaries, complaints, and classification.

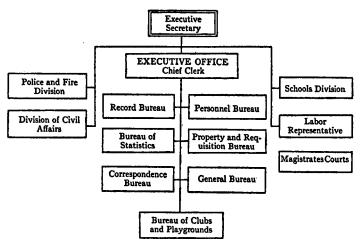
The Personnel Bureau is directed by a Chief of Bureau in the Executive Department. He reports to the Executive Secretary, whose power and influence may be compared to that of the Auditor. Personnel management is only one of many responsibilities coming within the jurisdiction of the Executive Department. Some idea of the ramifications of the office may be obtained from Chart IV and from an enumeration of the bureaus which report to the Executive Secretary. The Executive Department consists of the Executive Office, the Divisions of Civil Affairs, Police and Fire, and Schools, and (extra-departmentally) the Magistrates Courts. The Executive Office, headed by the Chief Clerk (who is next in authority to the Executive Secretary), is composed of the General Bureau and the Bureaus of Records, Personnel, Correspondence, Clubs and Playgrounds, Property and Requisition and Statistics. It is the departments of civil government and of general administration rolled into one.

The Personnel Bureau, in many respects the most important of the staff services in an organization, is—as has been suggested—only one bureau among many. Swallowed up in a large office room, close beside a battery of filing cabinets, the Personnel Bureau gives clear evidence of the fact that it is only a cog in the machine rather than one of the main dynamos.

With its fifteen employees the Personnel Bureau might be thought to receive more emphasis in Canal Zone administration than it actually does. In point of fact, the work of the bureau is a mass of detailed record-keeping, which is done by clerks. A modern employment department undoubtedly would require fewer employees. The head men of the Personnel Bureau have not received special training in personnel administration, and it is apparent from the methods employed by the service that they either have not informed themselves on or have not acted upon recent developments in personnel management. The present bureau chief began work in the Canal Zone in 1911 as a clerk in the Isthmian Canal Commission and was transferred to the Personnel Bureau in 1917; he has been Chief

CHART IV

EXECUTIVE DEPARTMENT, THE PANAMA CANAL



FUNCTIONS OF THE EXECUTIVE OFFICE

Record Bureau:

Current permanent correspondence and engineering files and records; receipt, dispatch, and distribution of official correspondence and mail; messenger service; translations; document storage and distribution; Canal Zone library and branches.

Bureau of Statistics:

Wage and salary adjustments; shipping statistics and reports; vital statistics, filing of birth and death certificates; publicity; tourist service; monthly and annual reports of Governor; special investigations and correspondence.

Correspondence Bureau:

Centralized stenographic, secretarial, clerical, and mimeographing service; United States passport visas.

Personnel Bureau:

Employment and personnel changes; personnel records of employees; civil service; retirement; railroad and steamship transportation.

Property and Requisition Bureau:

Property records and accountability; supervision of furniture procurement; preparation of work requests, requisitions, invoices; inventory.

General Bureau:

Survey and appraisal of property; roll-keeping and supervision; radio and cable service; official photography; investigation of complaints.

Bureau of Clubs and Playgrounds:

Community clubhouses; bathing beaches; swimming pools; athletic fields; playgrounds; gymnasia.

of Bureau since 1921. His preparation consisted of a highschool education, after which he obtained a general business experience. The assistant to the chief of the bureau has had much the same background. The result is very apparent; there has been a deep grooving in the personnel work with the result that the stereotyped techniques of twenty years ago are still followed. Recent discoveries in testing, classification, rating, and psychological method have apparently gone by unnoticed. The Personnel Bureau is kept very busy filing service records, preparing lists of candidates for positions, and arranging for the steamship transportation of employees while on their vacations.

The internal business of the Personnel Bureau, consisting primarily of filing and record-keeping, appears to be transacted in a complicated and ineffectual manner. The filing system used in keeping employees' records is the principal evidence of this red tape, because these files are the working tools of the office. Instead of segregating important data relative to training, entry into the service, efficiency rating, and promotions, every bit of information remotely pertaining to the individual -including correspondence of all kinds-is arranged chronologically in bulky tomes. The files are sometimes several inches thick, extend into a second volume, and are not indexed. In addition to correspondence relating to quarters, vacations, and many other subjects, such matters as newspaper clippings, correspondence of employees on vacation, and other superfluous items of biographical interest are included. Besides this filing system there is a card for each employee, on which the dates of his promotions and salary increases are recorded. This card is simple and clear, but it does not afford all of the information the personnel director needs at his fingertips.

One great aid to personnel administration has been the compilation of an official pamphlet entitled *Personnel Regulations*, which contains the complete rules and regulations relating to The Panama Canal and the Panama Railroad in force in 1928. Copies of this publication can be secured by individual em-

ployees, who find it an invaluable source of information relative to their duties and privileges.

SCOPE OF CIVIL SERVICE REGULATIONS

The primary responsibility for the personnel system existing in the Canal Zone has been the Governor's; laws of Congress give him a great deal of freedom. In the Panama Canal Act of 1912, for example, there is the following general provision:

All other persons [besides the Governor]....shall be appointed by the President, or by his authority, removable at his pleasure, and the compensation shall be fixed by the President, or by his authority, until such time as Congress may by law regulate the same; but salaries or compensation fixed hereunder by the President shall in no instance exceed by more than 25 per centum the salary or compensation paid for the same or similar services to persons employed by the government in continental United States.

The Governor, representing the President and the Secretary of War, in actual practice has been given a great deal of discretion in organizing departments, in setting up personnel regulations, and in controlling discipline and promotions.

Not all classes of employees have been brought within the classified Civil Service. An Executive Order of the President provides:

All officers and employees in the service of The Panama Canal, except those who are to perform the duties of clerk, bookkeeper, stenographer, typist, surgeon, physician, trained nurse, or draftsman, shall be exempt from examination under Civil Service rules, and appointments to clerical positions on the Isthmus of Panama paying \$80 per month or less may also be made without examination. Officers and employees now in the service of the Panama Railroad Company on the Isthmus may be transferred to and retained in the service of The Panama Canal without examination, whenever any work now performed independently by the Panama Railroad is consolidated with similar work performed by The Panama Canal.

At the present time about 15 per cent of the American employees of The Panama Canal have a Civil Service status.

The general rule relative to government-owned corporations is that they are exempt from Civil Service regulations. In the-

ory the Panama Railroad Company enjoys all the privileges and immunities of a government-owned corporation. However, in practice an increasing number of Railroad employees have acquired Civil Service ratings, and it is now a policy on the Isthmus to make no differentiation between the Canal and the Railroad in filling future personnel needs. In 1914, when the two organizations on the Isthmus were combined, some of the Railroad's employees assumed Civil Service status in accordance with the provision of the Executive Order referred to in the previous paragraph. A second reason for finding Civil Service employees in the Railroad organization on the Isthmus is that certain persons wish to take the qualifying examination in order that they may transfer from Railroad employment to a position in The Panama Canal if a more remunerative position opens up. Finally, in recent years it has been the avowed policy to fill vacancies arising in the Railroad organization on the Isthmus with persons whose names are on the Civil Service eligibility list when they are available and qualified. This policv has been carried out by the Executive Department and has received the tacit approval of the Governor. "So far as we are concerned." stated an informant in the Personnel Bureau, "no distinction is made between the Canal and the Railroad; they are really one. We get a Civil Service man a job whenever we can." At the present time, however, the great majority of Railroad employees are not subject to Civil Service.¹ In the Commissary Division 42 per cent of the gold-roll employees are exempt from Civil Service regulations. Most positions out of the 58 per cent classified as Civil Service are clerical posts.

Although the Railroad organization has by no means been captured by the Civil Service, if present policies of recruitment continue to be followed, it must eventually capitulate. Serious attention should be given to the future policy relative to this

¹ In the office of the General Manager of the Panama Railroad Company 60 per cent of the employees are not in Civil Service, while the corresponding percentage in transportation and maintenance is 99, and in the Receiving and Forwarding Agency, 82 per cent; none of the employees in the New York office has Civil Service status.

matter. In treating the Canal and the Railroad as if they were one in matters of personnel management, will not one of the greatest advantages of the government-owned corporation freedom from the red tape and the restrictions of the Civil Service—be lost? So long as insistence upon Civil Service status in new appointments is confined to clerks and secretarial help, no appreciable difference in results is likely to follow. However, in matters pertaining directly to the operation of commercial services there are definite advantages in being free to discipline, remove, and promote employees without being bound by Civil Service regulations.

It is extremely unfortunate that this freedom which the government-owned corporation has should be dissipated by drawing personnel regulations relative to the Railroad into exact conformity with those of the Canal. That this is the present tendency seems to be clear; and so long as The Panama Canal is unincorporated the policy must be continued. Uniform regulations relative to all employees on the Isthmus are imperative. Nevertheless, it should be recognized that the weaker of the two systems is being followed.

The operating efficiency of the economic services maintained by The Panama Canal could be improved, it is generally conceded, if the management had more freedom to hire, fire, discipline, and reorganize. This may be accomplished some day by incorporating The Panama Canal. In the meantime it is shortsighted to weight down the Panama Railroad Company with the restrictions upon personnel management which are found in the ordinary government department.

RECRUITMENT OF EMPLOYEES

With the growing to adulthood of a generation of Canal-Zoners born and raised on the Isthmus, the ingrowing features of the Canal Zone bureaucracy have become even more pronounced. In recent years there have been comparatively few openings in the Canal-Railroad services, and they have been filled very largely from persons residing on the Isthmus.² "We never send to the United States for a man," said the acting head of the Personnel Bureau, "if a qualified person can be found on the Isthmus." Here is another trend which would appear to have far-reaching consequences, some of which already strike the observer with great force.

Until recent years most of the recruitment of Canal Zone employees was handled by the appointment clerk in the Washington office of The Panama Canal. This statement should be qualified by saying that the American employees were secured by this means, whereas "silver" employees were engaged on the Canal Zone after they had emigrated in large numbers from the British West Indies and elsewhere. Eligibility lists of Civil Service and unclassified employees are kept in the Washington office, and requests from the Isthmus are sent there. But at the same time eligibility lists of those available on the Isthmus are kept up by the Personnel Bureau at Balboa Heights. Because of the policy of choosing local people, the work of selection in Washington has shrunk to practically nothing, and only one clerk, who is a liaison officer to the United States Civil Service Commission, is required for the purpose.

The practice of choosing local people is not, as might be surmised, entirely attributable to the re-employment of persons who have been laid off on account of reductions in force; the Canal and the Railroad have added new employees even during the depression years. The policy of employing Canal-Zoners in preference to persons from continental United States is primarily a matter of taking care of one's own. Wherever possible, openings are found for the sons and daughters of Canal-Zoners. As has been said, there are already more young people in Canal Zone families than can possibly be absorbed by existing services, and the future prospect is darker rather than brighter. The local high schools are turning out approximately one hun-

[•] In the fiscal years 1931, 1932, and 1933 the total of employments and reemployments on the gold roll was 805; of these, 261 were employed or re-employed in the United States.

dred and thirty-five graduates each year, and there are possible openings for only a fraction of this number on the Isthmus. At the present time a considerable number of high-school graduates are employed on N.R.A. projects, but when these projects are completed these young people will probably have to join the ranks of the unemployed. In order to avoid any misunderstanding, it should be added that the Canal Zone administration does not tolerate nepotism or encourage unnecessary employment of relatives or other persons.

It might appear that the obvious reasons for recruiting local personnel rather than sending to Washington are overwhelmingly convincing. An additional argument for confining competition to the Canal Zone is that travel expenses are saved thereby. However, there is another side to the question. In the present situation there are already objectionable features, and the avowed policy of inbreeding adds to them.

The Canal Zone needs new blood. Tropical climates are enervating. People need a change. The sound Army rule is that after a tour of three or four years a man is transferred elsewhere in order that he may get a different type of experience and enjoy the stimulation of new surroundings. Government work, like the business of any large-scale organization, is likely to result in grooving, red tape, and lack of initiative. This natural tendency is strengthened in the enervating climate of Panama. After a few years, mental curiosity is diminished, and in most cases an all-consuming complacency gets into the very blood. What the effect is upon the second and third generations, from the standpoint of health and morale, has not been determined with scientific accuracy. It is known that old-timers retiring from the service and returning to the States do not survive long. Resistance to disease is lessened by living in the Canal Zone, and diseases of the liver, functional disorders of the nervous system, and various forms of anemia are much more prevalent. Insanity is also much more common on the Isthmus than in the United States.

The average tenure of Canal Zone employees is already too

long—without filling up the service with their progeny. The average length of service of ten of the highest-ranking permanent officials is between twenty and twenty-five years. No group of men could be more devoted to the Canal Zone's interests than are these; and no commercial enterprises could be found which are freer from the suspicion of dishonesty than are those administered by Zone officials. Their work is done satisfactorily, and most of them have retained their enthusiasm for work and their open-mindedness to change. There can be no doubt, however, that the climate has taken its toll. Being out of touch with new developments in the United States, they are slow to introduce improved techniques. The infectious complacency of the tropics pervades their work.

How much better it would be if the tour-of-duty idea applying to the offices of Governor, Engineer of Maintenance, and Assistant Engineer of Maintenance could be extended farther down the line to department heads. If it were possible for certain Canal Zone officials to exchange places for five years (say) with federal officials engaged in the same kind of work, there would be a resulting benefit all around. It is suggested that the possibilities of effecting such an arrangement might be studied with profit. Not only would such a plan help to check grooving and to minimize the disadvantages of an ingrowing bureaucracy, but it would have a very beneficial effect upon the health and spirits of the older employees. The new blood that is needed in Canal Zone administration should be obtained from the universities and the technical schools. The men who are department heads today are, in most cases, "self-made men." Few of them were able to acquire the technical knowledge and liberal education which are considered essential today for comparable positions in the United States. What appears to be desirable is that young university-trained men should be taken into the organization as assistants and later promoted to positions of responsibility. In the engineering services a beginning has been made. For example, in the Office Engineer's section, there are university men who may be counted upon for future

executives. There should be such university-trained men in the other departments, but they are conspicuously rare. Now and then every organization needs a "shaking up"; the appointed time for the Canal Zone services appears to be near at hand. In a few years the present department heads, the original canaldiggers, will be retired. As these vacancies occur it would be good policy to infuse new blood—men who have had special training—into the organization.

EFFICIENCY RATING AND PROMOTION POLICY

One of the least satisfactory phases of Canal Zone personnel management is the reporting system which is used in rating employees for increases and promotions. The employee's efficiency report is sent to the Personnel Bureau semiannually by the department head. Only three questions are asked: How do you rate the employee's "general workmanship"? What is your opinion of his "general conduct"? And has a copy of this report been shown to the employee on account of lowered ratings? The last question is answered "yes" or "no," while the first two questions are rated "excellent," "very good," "mediocre," or "poor." Judged by modern rating systems, the Canal Zone report is inadequate, and this opinion is substantiated in actual practice. In order to be rated "excellent," an employee "need not necessarily be brilliant nor of exceptional ability," according to the rating rules; "any employee who thoroughly knows his business and who performs his work faithfully, intelligently, diligently, and for the best interest of the service may attain this rating." It is generally conceded that this rating is given very freely. The assumption is that the general level is "excellent." None of the marks appears to mean exactly what it seems to; "good," for example, is "average," "due to insufficient experience, incomplete training, or imperfect physical condition"; "mediocre" indicates that the employee's work has "not been good enough, in fact, to make his employment desirable." In other words, even if such a sketchy system had not been proved inadequate time and again wherever it has been tested, the meanings of the marks are subject to such extraordinary interpretations that they fail to provide a reliable report.

With such an inadequate personnel reporting system in operation, the heads of departments.are more charitable than they might naturally be inclined to be in evaluating the work of their subordinates. Instances have come to light where employees had been rated "very good—very good," whereas in a showdown the rating officer admitted that he considered the persons poor workmen and not desirable for re-employment or promotion. It may be said, of course, that if such glaring failures to perform a patent duty exist, the proper remedy is to educate the heads of departments. This is important, but it is thought that the fundamental defect is in the system and that until it has been thoroughly overhauled not much lasting improvement may be expected.

In recent years rating systems have been devised which are reliable guides to executive officers and to personnel directors. They make it possible to elucidate complete and accurate information on an employee, and at the same time they largely succeed in getting away from favoritism, prejudice, and lack of courage on the part of the rating officer.

The Probst system is, at the present time, the best of these modern rating techniques. The fundamental feature of the plan is that a person should be rated for what he is and not for what the department head thinks he should be. This involves the answering of approximately one hundred specific questions pertaining to the record, character, abilities, and attitudes of the employee. The rating officer expresses a degree of excellence or deficiency for each question, and the entire test gives a mathematical total which is worked out by an independent tallier. Three superior officials, instead of one, fill out these charts independently of each other, and the results are then compared. The plan has been checked from many standpoints, has been given practical tests in many places throughout the United States, and seems to be very reliable. Minor defects are in the process of being corrected. It is at least twenty years ahead of the system in use on the Isthmus. If a scheme such as this were introduced, reports would not need to be made so frequently as they are at present. The adoption of an improved rating system is one of the first steps that a modern personnel bureau would take.

In the Canal Zone, promotions within each department are controlled almost entirely by the head thereof, and appointments to the position of department head are handled entirely by the Governor. No promotion board of any kind has power to act in an advisory capacity relative to promotions. When there is an opening within a bureau, someone within that special branch of the service is moved up, almost without exception, instead of considering candidates from other bureaus and from other departments. The degree of specialization involved in most Canal Zone work is given as the reason for this practice, but it appears that the tradition is probably followed too closely for the best interests of the service. It results in grooving, in the limitation of competition for advancement, and in failure to uncover men who might fit into the position with greater success than the person who is in line for it. So long as the head of the Personnel Bureau performs merely routine duties, however, the present stratified promotion system is not likely to be altered. Under a modern personnel system, wherein the personnel man is given opportunity for initiative, the personnel chief would keep his eyes on the total promotional opportunities and the likely candidates therefor; and when the time came to fill a vacancy, he would see to it that likely candidates in related bureaus were given an opportunity to compete. A stereotyped personnel plan emphasizes positions; an effective personnel system stresses individual ability.

Inasmuch as the Canal-Railroad establishment is influenced only partially by Civil Service regulations, there has been freedom to promote irrespective of seniority. Relative to administrative promotions on the Isthmus it has been provided that "it is the policy to promote employees according to seniority, other conditions being equal. In all cases, however, a greater weight will be given to effectiveness in the class of work to which an employee is assigned than to mere consideration of longevity in that class of work, or in the service in general."

It is a credit to Canal Zone administration that most of the present department heads were pushed ahead of men who had longer service ratings because the junior officials were recognized as having superior executive ability. In some cases promotion has been based upon the possession of special training; an illustration of this is the advancement of the present Auditor, who had a legal background and a knowledge of federal financial regulations. However, this sound rule of promotion seems to have been followed in comparatively few cases—perhaps relatively few men with special training have been recruited into the service. There is a great need for more of these men, as we have already pointed out.

In making recommendations for promotions it is inevitable that in some cases prejudices should creep in. This is more true in the case of some department heads than in others. Alleged instances of strong personal prejudice have, in the case of one department head, been brought to the writer's attention. A modern rating system would go a long way toward eliminating possible injustices but it is suggested that the advisability of . employing promotion boards also deserves reconsideration. Such boards should be made flexible in order to include those immediate supervising officers who are best acquainted with the candidate. Reports should be kept confidential, and balloting should be secret. Each member of the board should express his choices in order of preference. The result should be considered merely advisory, but the department head and the Governor would deliberate very seriously before upsetting the recommendation. This system is in successful operation in other public commercial enterprises, such as the British Post-Office. Contrary to what might be expected, the promotion board in systems with which the writer is familiar has not always made its recommendations strictly on a seniority basis but has shown enough farsightedness to favor junior employees

of outstanding ability. Promotion boards, operating along lines such as these, might be of real advantage to personnel management in the Canal Zone.

REMUNERATION POLICIES

The total compensation of Canal Zone employees is considerably lower today than it was during the construction period, but in view of the improved conditions this leveling-down was to have been expected. Just how much greater the differential represented in real wages is today, in comparison with corresponding compensation in continental United States, is difficult to gauge accurately.

The Panama Canal Act of 1912 made the payment of 25 per cent above rates for corresponding employment in the United States optional and not mandatory, but for many years it has been the practice to allow employees, with some exceptions, the full differential. This provision does not apply to silver employees. When it has been impossible to secure comparisons with governmental basic wages, the rates used by private industry have been resorted to. As a matter of fact, the establishment of a number of wage bases in the Canal Zone involved the use of Civil Service, navy yard, building trades, United States Army Engineers Corps, continental railroad, craft, and District of Columbia rates of remuneration.

Wages and salaries for gold employees are established respectively by a Wage Board and a Salary Board, while all wages for silver employees are determined by the Silver Wage Board. The Salary Board is composed of the Auditor as chairman, of eight heads of departments, and of a labor member, who has a voice at meetings but who is not entitled to vote.

The salaries paid to career men, i.e., heads of departments and chiefs of bureaus, are attractive in comparison with either governmental or private standards. They are not too high. Three department heads receive salaries of \$729 a month and three others earn \$666 monthly; two assistant department heads and a division chief are paid \$583 a month, while bureau heads receive salaries averaging around \$350 a month. The existence of salaries such as these provides a real incentive to career employees.

The Wage Board deals with the remuneration of gold employees other than those in salaried or directive positions. It is composed of two members, one of whom is appointed by the Governor and the other of whom is nominated by the Metal Trades Council and approved by the Governor. For the past several years the Governor has designated the Assistant Engineer of Maintenance as the administration member of the Board, while the employees' union has selected its president. The present incumbent, prior to his appointment to the Wage Board, was employed as a machinist in the Balboa shops. The basic salary of the executive head of organized labor on the Isthmus is paid by The Panama Canal because of his service as a member of the Wage Board. Someone other than the president could be chosen by the Metal Trades Council, of course. It will be observed, however, that the relationship thus established gives the organized employees a definite official status as a part of Canal Zone administration.

In all cases the Wage Board acts in an advisory capacity, and the determination of the rates to be authorized rests finally with the Governor. Where the comparability of employment has not been well established and where no fixed base for the determination of local rates has been agreed upon, the question as to the proper local rate inevitably becomes a matter of personal judgment, and not infrequently the two members of the Wage Board submit dissenting opinions to the Governor. The employees have usually fared very well.

In the Canal Zone the government deserves to be called a model employer. It has been able to secure and to hold a superior grade of employee. Employment is generally steady even in the crafts. The administration usually prefers to err on the side of higher rather than lower levels in comparisons with States' wages. American employees receive as much as \$241 a month as meat-cutter, \$231 as truck driver, \$249 as electrical worker, \$268 as pattern-maker, \$332 as railway engineer, and \$350 as railway dispatcher. In January, 1934, the average compensation for all employees on the gold roll was \$242 per month.³ The Economy Act of 1933, providing for a temporary 15 per cent cut in the salaries of government employees, specified that Panama Railroad employees were included within its provisions. Here is an instance in which it might appear that the government-owned Railroad corporation would not be subject to the provisions affecting ordinary government employees, but the close identity of the Canal and the Railroad administrations made consistency imperative.

With the passage of the Welch Classification Act by Congress in 1928, the Governor decided to apply its general provisions relative to classification and wage schedules to comparable groups of positions in the Canal Zone. The Act was not applicable by law to the Canal Zone, but it was decided that the general provisions of the new classification could be applied with advantage to Zone classes in need of standardization. A Classification Committee was created, consisting of the Auditor, the president of the Metal Trades Council, and the assistant chief of the Bureau of Statistics. In 1929 a committee which was sent to Washington received the unofficial approval of the Personnel Classification Board for the Canal Zone classification scheme. The reclassification involved a considerable number of changes at the time; but the work was completed some time ago, and the Classification Committee, though it still exists, now confines its work to the classification of new positions-a duty which does not involve a great deal of labor.

Here is another instance where the work ordinarily done by the personnel department is handled by an *ad hoc* body. If a modern personnel bureau were a part of the Canal Zone administration, reclassification would be taken care of by the head of the personnel department.

³ The average for silver employees, of which there are over eight thousand, is \$52 per month, while the average for the entire organization, both gold and silver, is \$99 per month.

The Silver Wage Board is composed of the heads of all departments and major divisions of The Panama Canal and the Panama Railroad, with the Auditor serving as chairman. The board meets semiannually. It recommends to the Governor general schedules of rates to be applied to the silver, or alien, employees. In The Panama Canal organization 6,575 aliens are employed as compared with 2,464 Americans; in the Panama Railroad administration on the Isthmus there are 2,238 aliens and 391 Americans in the service. In general, rates for silver employees are based partly upon rates prevailing for similar classes of employees in the West Indies and in the neighboring republics of Central America and partly upon the cost of living index as adjusted periodically in conformity with price changes on staple articles sold in the commissaries. In September, 1933, the average monthly wage of silver employees, not allowing for the deduction of 15 per cent from their earnings as required by the recent law, was \$51.36.

A large part of the work ordinarily done by the personnel department in most organizations is performed in the Canal-Railroad establishment by the Bureau of Statistics. Either the chief of the bureau or his assistant acts as secretary to the several salary, wage, and complaints boards. In connection with adjustments based on rates prevailing in the United States, the Bureau of Statistics assembles the data and computes the local rate. Moreover, because of the bureau's familiarity with existing and past rates of pay, the Governor sometimes refers wage matters to it for comment and recommendation in place of reference to one of the boards. In other words, in the formulation of policies and in personnel management as an active force, the Bureau of Statistics is the cylinder in the machine.

It is almost impossible to compute the real wage of Canal Zone employees, because the situation is complicated by factors which do not obtain in the United States. The remuneration is 25 per cent higher than in the United States, and the cost of food and clothing probably averages somewhat less. There ap-

pears to be no question that the proportion of income spent for rent in the Canal Zone is less than that spent in the United States. Then, too, the Canal Zone charge for gardening, house repairs, water supply, and electricity is definitely less than the average cost of these services in the United States. There are no taxes to pay. Entertainment is provided at prices which correspond rather closely to those in the United States, but employees may (and many do) join clubs in Panama, which add considerably to their entertainment bills. Just how much these savings amount to, it is difficult to say.

The factor which upsets the comparison is the necessity and expense of taking a vacation. The expense varies with the size of the family and with the distance into the United States which must be traveled. But in any case it may be said that if the employee and his family take a vacation in the United States as frequently as they should in order to maintain their health and vitality, the cost eats up a large part of any savings which might be acquired in other ways.

The Canal Zone officials do everything possible to encourage employees to spend their vacations in the north. Salaried employees are entitled to a maximum of sixty-one days' vacation on pay each year, and the maximum for hourly workers is fiftyone days. This allowance is not unreasonable. Two or three weeks of this time are spent in necessary travel. All employees work six days a week instead of being entitled to Saturday afternoons as in the federal service; this in itself makes a difference of twenty-six days a year. Finally, Sundays and holidays are not deducted from vacation periods as they are in the federal Civil Service. Vacation allowances may be accumulated until the Canal-Zoner is entitled to one hundred and twenty days. Most families cannot afford to take a vacation in the north every year but do well to leave the Isthmus every second year.

The cost of transportation is moderate if the destination is near New York City. But even a round-trip steamship fare on the Panama Railroad ships (\$60 per person) amounts to considerable for a family of three or four. Some estimates put the cost of the average family vacation spent in the United States as high as \$1,000. At any rate, it is the vastly different conditions appertaining to vacations which largely offset the increased remuneration and lower cost of living of the Zone employee.

The Special Panama Canal Commission of 1921 concluded that Canal Zone employees are overpaid. This impression would not appear to be accurate. It is true that some of the thrifty canal-diggers who have stinted on vacations have saved up tidy sums of money, but most employees today are said to acquire no more than the average run of employees in the United States. Moreover, the assertion which has sometimes been made in Congress to the effect that Canal-Zoners live "extravagantly" appears to have no basis in fact. As has been said before, the policy of acquiring and holding superior employees is justified by every consideration.

Excepting the employees in the New York office of the Panama Railroad Company, all Canal-Railroad employees who are United States citizens come within the terms of the Canal Zone Retirement Act of 1031. This law provides for an automatic deduction of 5 per cent from the employee's salary. The automatic retirement age is sixty-two years, but employees who were in the service for three years prior to April 1, 1914, may retire voluntarily at the age of fifty-five years if they have completed thirty years of service on the Isthmus of Panama. The maximum benefit under the plan is an annuity of \$125 a month. Congress stipulated specifically in the Act that employees of the Panama Railroad Company on the Isthmus should be included in the provisions of the law. The employees of the New York office of the Panama Railroad Company are still under a plan which was established many years ago and which is administered by trustees chosen from the Board of Directors. Its provisions are somewhat more liberal than those of the Canal Zone Retirement Act.

DISCIPLINE AND REMOVALS

The provisions of the Canal Zone personnel regulations relative to conduct and discipline have been set forth in great detail. Various forms of discipline may be employed, including caution, reprimand, suspension, suspension during investigation, and discharge. In cases involving formal reprimand, suspension without pay, or discharge, the written statement of the employee concerned will ordinarily be secured before taking action. Under no circumstances is a reduction of pay permitted as punishment for unsatisfactory conduct. The more serious disciplinary cases almost invariably come to the Governor's notice, and sometimes his action is required.

Detailed personnel regulations have been drawn up relative to various forms of objectionable conduct from which disciplinary action may result. These commandments cover such subjects as indebtedness, loans from subordinates, profane and abusive language, gifts and solicitations of contributions, political activity, raffles and lotteries, and prize-fighting and boxing. A great deal of consideration is given to moral questions in Canal Zone personnel management, and the tendency is to be rather austere.

Authority to discharge employees for cause is restricted to heads of departments. An employee holding a permanent position cannot be discharged for generally unsatisfactory service without having previously been given a formal warning reprimand. Reason for discharge must be stated. Afterward an appeal may be taken to the Governor. In actual practice general incompetence is rarely given as a cause for discharge but, instead, insubordination or serious defaults of duty.

There can be no question that the individual laborer is more fully protected from possible injustice under the Canal Zone system than under almost any other. Aliens on the silver roll are appointed, disciplined, and discharged by responsible supervisors and foremen subject to the approval of the head of the department. The Governor naturally feels that injustice would cause resentment, injure morale generally, and perhaps have

political repercussions. These are the principal reasons that disciplinary action and removals have been firmly controlled from the Governor's office. A department head must be very sure of his ground before taking action of any kind against an employee. This system prevents the bullying and injustice which are sometimes found in private business, but it also checks the vigor and the assurance with which executives handle their men. If there were more liberty to discipline and to discharge, the efficiency of Canal Zone administration could probably be improved. If The Panama Canal were a government-owned corporation instead of a government department, there would probably be more disciplinary action and more removals for general incompetence. In a corporation an employee can be removed simply because he does not have the ability or is not putting forth the effort of persons who can be secured for the job. This same consideration should be made to apply to public commercial undertakings wherever it is possible to do so.

LABOR ORGANIZATIONS

Because of the singular character of life on the Isthmus, wherein almost every function is performed by public agencies, the organized employees have a strength and an influence which is not duplicated anywhere else under the American flag. The Panama Metal Trades Council is the principal vehicle of the staff side in dealing with the officials, and, as has been said, it has taken on what almost amounts to an official character. It is a central labor body which has broadened its activities in order to deal with every community and contentious issue of any importance. It is affiliated with the American Federation of Labor and is active in Washington.

Inasmuch as American citizens in the Canal Zone do not enjoy the voting privileges of American citizens in the United States and, hence, since they cannot influence the civil government thereby, it becomes important that they should have a channel for expressing the views of local residents in the Zone, not only on employment questions but also on social, govern-

mental, moral, and international issues. Such channels are supplied partially by church and fraternal organizations, of course, but primarily by the employees' organizations.

The first organization of groups of workers occurred in 1906, when canal construction began in earnest. At this time the Steam Shovel Engineers and Machinists perfected the organization of local unions, which were connected with national unions, which in turn were affiliated with the American Federation of Labor. From time to time other crafts organized, and in 1915 the Panama Metal Trades Council came into being.

At the present time this central labor organization has 33 local unions affiliated with it, representing 25 national and international labor bodies. The unions are exclusively craft and mechanical, there being no clerical or white-collar unions affiliated directly with the Metal Trades Council. The respective memberships of the local unions vary from 7 to 250, and dues range from 75 cents per month to \$4.00 a month. Organizations in which the dues are in excess of \$1.50 per month usually have a death benefit or some other insurance feature attached to them.

There are approximately twenty-eight hundred American citizen employees of The Panama Canal and the Panama Railroad Company, and the Metal Trades Council represents officially approximately fifteen hundred of these employees. It may be said to represent practically all of them indirectly, however, inasmuch as most non-affiliated employees have no other way of communicating their views, except by personal appeal to the Governor.

There are a few organizations of employees which are not affiliated with the Metal Trades Council. These include a branch of the National Federation of Federal Employees, the Locomotive Engineers, the Railroad Conductors, and the Marine Engineers Beneficial Association. Inasmuch as the national associations controlling these Isthmian unions are not affiliated with the American Federation of Labor, they cannot affiliate with the Metal Trades Council even if they wished to do so. The National Federation of Federal Employees is said to have a local membership of about three hundred, and it is composed largely of non-industrial employees.

The Metal Trades Council functions much as a central labor body would in the United States, except that it deals with the affairs of government employees and except that the scope of its activities is somewhat greater than that of a central labor organization in the United States. Its principal objectives naturally are to increase wages, to shorten hours of labor, and to improve the working conditions on the Isthmus. In addition, the Council devotes a great deal of time to law and civil government. Its president, as has been said, represents the employees on the salary, wage, classification, and complaints boards, thereby giving the Metal Trades Council an important influence upon personnel administration.

In addition to the work the Council does locally, it frequently finds it necessary to send a legislative representative to Washington to deal with Congress in attempting to secure beneficial legislation for the Isthmus. In this it has had considerable success, taking deserved credit for defeating and having passed bills of far-reaching importance. By close co-operation with the American Federation of Labor, it is able to throw a vast amount of weight behind its programs.

In the Council's work on the Isthmus it receives a great deal of support from the Canal Zone Women's League, a very active organization composed almost exclusively of wives of organized employees. The general objectives of the Women's League are in consonance with those of the Metal Trades Council. The militant women are very effective at bearding officials in their dens.

In one of their official publications the Metal Trades Council has set forth its future program, which is as follows:

 The maintenance of all that is good in our present conditions of employment.

2. A reduction in the hours of labor on the Canal Zone.

3. A scale of wages that will remedy the faulty distribution of wealth which has been responsible for the depression.

4. Optional retirement after a definite period of service, regardless of age, 30 years to start with, probably 25 years later.

5. A provision for widows' annuities in our retirement plan.

6. The employment of a larger proportion of American citizens on the Canal Zone.

7. A Resident Commissioner for the Canal Zone.

One of the connecting links between the employees and the administration is the Complaints Board. It is a check on the authority of directing officers and an official channel through which employees may air their grievances. The Complaints Board is composed of four members, namely, the Engineer of Maintenance or the Assistant Engineer of Maintenance, the head of the department or division within which the complaint originates, and two members who must be bona fide employees of The Panama Canal or the Panama Railroad—one of whom is the labor member of the Wage Board and the other a representative selected by the employee or other interest concerned in the complaint.

The purposes of the board are to make investigation and to advise the Governor concerning complaints relative to working conditions and such other matters as may be referred to it. The findings of the Complaints Board, being subject to the final action of the Governor, are merely advisory. No case can be brought before the board until the matter has been duly presented to the head of the department, and then it must be submitted to the board in writing. In the past, most matters of complaint have been cleared through the offices of the Metal Trades Council, which is naturally interested in bringing the complaint to the attention of the proper authorities. In recent years the number of complaints has been small, presumably indicating the contentment of employees with their treatment.

The work of the Salary, Wage, Complaints, and Silver Wage boards, plus the jurisdiction of the Classification Committee and the Bureau of Statistics, constitute a large and important part of personnel management. There would appear to be little question that, in an up-to-date system, the determination of many of these questions should be an integral part of the personnel officer's duties. It is suggested that the advisability be considered of placing the original responsibility for classification, wage, and salary studies, and for employees' complaints, upon the chief of the Personnel Bureau, with the resulting reduction in the number of *ad hoc* boards.

Deliberative boards in which the staff and the official sides are brought together are undoubtedly an invaluable adjunct to good administration. It may be suggested, however, that greater benefits might possibly be obtained from boards having a more comprehensive jurisdiction over personnel matters than from the present system of specialized committees. Something on the order of the British Whitley Councils is what the writer has in mind.⁴ There might be a Canal Zone council, for questions affecting employees as a whole, and possibly divisional or departmental councils wherever they seemed to be necessary or desirable. The suggested board would have general jurisdiction over questions of remuneration, working conditions, and complaints. Representation on the board would be equal as between the official side and the staff side. The conclusions of the body, just as at present, would be advisory rather than conclusive.

The principal value of such general labor boards is an educational one. The mixed council is a means of bringing the views and the grievances of the organized employees to the attention of the management before dissatisfaction has had a chance to become chronic; it is a means of acquiring knowledge and suggestions which may be of benefit to responsible officials; and it is a means of educating employees in the problems of management and thereby of increasing their comprehension and patience. Such a plan might work with great success in the Canal Zone, where the guild concept is already fairly well understood.

ALIEN EMPLOYEES AND REPATRIATION

Probably the most difficult personnel problem in the Canal Zone is that of arriving at the proper ratio of white employees

• Cf. Leonard D. White, Whitley Councils in the British Civil Service (Chicago, 1933). to colored employees in the Canal-Railroad services. The present situation appears to be straightening itself out gradually, but the various complicated factors need to be thoroughly understood. The solution of the problem is made difficult by the number of conflicting interests which enter into the question.

In January, 1934, there were 11,526 employees of The Panama Canal and the Panama Railroad Company on the Isthmus, and of these 2,853 were American citizens while 8,673 were aliens. The alien employees, as has been said, are mostly British West Indians who originally lived in Jamaica or Barbados. Relatively few of the alien employees are from Panama or from other countries in Central and South America.

The Special Panama Canal Commission of 1921 concluded that the Canal Zone should "employ tropical labor and artisans to the maximum extent possible" and that the Governor should use "white employees from the home country to the minimum possible extent." In support of this recommendation the commission pointed out that "this plan not only reduces the cost of the operation and the call upon the man power of the home country, but it is also a benefit and a blessing to the tropical country concerned in that it employs its nationals and educates them in the arts and trades. Our citizens," continued the commission, "are accustomed to a temperate climate, and as such are physically unsuited to labor under conditions that exist in Panama."

The opposite policy has long been advocated by the Metal Trades Council and by the American Federation of Labor. These organizations point out that they do not recommend the employment of Americans as common laborers but that they do advocate the replacement of colored employees by white Americans in the case of skilled and semiskilled positions. Representatives of the Metal Trades Council assert that about 3,500 alien employees are holding skilled or semiskilled positions. In arriving at this figure the spokesmen for the organized employees plainly take in many jobs which require so little skill that they might just as well be classed as laborers' positions. In support of labor's contentions, however, it must be admitted that in the operation of the railway line all positions except those of engineer and conductor are occupied by silver employees. Official figures prepared in 1932 revealed that 17 brakemen, 128 firemen, and 4 baggage masters were silver employees. Among other positions which involve some degree of skill there were, in the same year, some 231 foremen, 6 marine engineers, 4 blueprinters, 32 butchers, 15 carpenters, 39 policemen, 94 teachers, and 454 office helpers who were alien colored employees.

In recent years the Canal Zone administration has given a great deal of thought to the proposal that wholesale substitutions of American for alien help should be made, but the decision invariably has been opposed to such a course of action. Instead, a policy has been adopted of considering the employment of a white instead of a colored employee whenever a vacancy occurs; several substitutions of this kind have been made, and the officials have been inclined to be liberal in this regard.

The arguments which are advanced in favor of comprehensive changes have grown in intensity since the depression set in. When there are ten million or more of unemployed in the United States, contends the Metal Trades Council, it is unfair and shortsighted to retain alien colored employees in skilled and semiskilled positions which thousands of Americans are anxious to have. "Conserving the man power of the home country" now sounds like mockery. Even if wages of only \$75-\$100 a month can be paid, it is said, hundreds of capable young Americans can be found who would gladly accept such opportunities. In the second place, many say that it is unpatriotic to employ thousands of British subjects when Americans are available and are eager to work. The West Indians can never become American citizens. In case of a war in which the United States was a combatant, would it be wise policy to have in a strategic strip like the Canal Zone thousands of alien employees? Why, it is sometimes asked, could not American negroes perform all

of the duties now done by West Indian negroes? A final argument in favor of employing a larger proportion of Americans is that white labor would be more efficient than the present silver labor and that as a result the work would be done more ably, and, in many cases, with less cost. This is a very strong point, but before considering to what extent it would appear to operate, we need to consider the other side of the argument.

The fundamental purpose of The Panama Canal, so the rebuttal goes, is to put ships through the waterway as expeditiously and as cheaply as possible. The Canal Zone is not a center for the propagation of the American stock and for the cultivation of American standards of living. Foreign nations make it a practice to employ native labor for tropical work in as many positions as possible, and so do American firms operating in Panama and in regions to the south. The Canal Zone activities should be conducted with as little cost as is consistent with efficient operation; everything else, it is held, should be measured by this yardstick. In order to obtain employees who are willing to go to the tropics, it is necessary to pay wages which are not only higher than those received by natives of the West Indies but also higher than those paid to white employees in the United States. Whenever it can be shown that one American can do a given job better and less expensively than two or more silver employees, the change should clearly be made. However, the number of such cases is held to be relatively small, and it is said that they are being taken care of as soon as vacancies occur.

Finally, according to some observers, the policy of enlisting additional Americans to settle in the Canal Zone should be definitely discouraged. The labor demands of the Zone are already insufficient to take care of the children of employees. If the activities and the pay-rolls of the Canal Zone are continually added to in order to absorb the local birth-rate among American employees, the Isthmian activities will eventually crash of their own weight. If present standards of living among white employees are to be maintained, it is argued, the number of gold employees must not be increased appreciably. Moreover, Americans should be discouraged from making the Canal Zone the family abode for their progeny because continuous residence would mean deterioration of the stock.

Even this brief enumeration of the arguments for and against the replacement of colored employees by Americans indicates the complexity of the problem. He is a rash person who would prescribe a categorical formula for the future. General agreement may be expected on the point that replacements should be made wherever the efficiency of the service will be improved thereby, but considerable disagreement immediately results when the formula is applied to particular positions. In some few cases it can be demonstrated clearly, so it is said, that one American employee can do the work of two or three colored workers, but in most cases the measurement of efficiency is a much more intangible factor. There are undoubtedly instances where replacements are favored by the Metal Trades Council in which, because of the nature of the job, one white man could accomplish no more than a lower-paid silver employee. Between official calculations and those of the organized employees there are wide differences of opinions as to the effect upon the numbers and salaries of employees if various schemes of replacement were carried out. The president of the Metal Trades Council estimates that roughly 2,300 American citizens would be able to perform the skilled and semiskilled work now done by 3,888 silver employees; how near accurate this estimate is and exactly what the additional cost would be cannot be determined to everyone's satisfaction. Additional studies of the subject should be made in the Canal Zone, after which it would be possible to weigh the other factors in the situation with greater assurance of reaching a sound conclusion.

No matter what policy is adopted relative to the controversy just discussed, the problem of repatriating unemployed West Indians and their families is already inescapable. If wholesale replacements were made, the difficulties of effecting the transplantation of hundreds of colored employees and their families would obviously become very great indeed. Even the existing problem, fraught as it is with international considerations, is a terribly knotty one.

When the United States undertook the construction of the canal in 1904, thousands of British West Indians were brought to the Isthmus as laborers. Repatriation at the expense of the United States was offered to all contract laborers and to others who had completed five hundred days of work. At the end of the construction period many of the aliens were sent back to their native islands, but large numbers of them returned again of their own volition.

The terminal cities of the Republic of Panama have become vast reservoirs of labor for the Canal Zone. From all the islands of the West Indies and from Central and South America, hundreds of workers have entered legally and illegally, attracted by the relatively higher wages of the Canal Zone. At certain times large numbers of these foreign workers are given employment in the Canal Zone, only to return again to Panama City or Colon when the work is finished. Fewer than half of the regularly employed colored workers reside in the Zone, the balance traveling back and forth to and from their abodes in the Republic.

At the present time it is estimated that in the Republic of Panama there are between twenty thousand and thirty thousand colored persons of West Indian extraction. Only a relatively small percentage of them are employees who came for the original construction job. The silver employees propagate very rapidly. As in the case of American employees, a new generation of workers has been thrown on the market. The difference is that in the case of colored employees the birth-rate is two or three times as high. Large numbers of the West Indians are unemployed, the exact number not being ascertainable. A surprisingly large percentage of the wards of insane and charitable asylums are of West Indian birth or extraction. Panama says she is not anxious to retain the West Indians; there is said to be very little social absorption. The British government has not found a solution of the repatriation problem. The government of the United States is not clear as to the extent of the responsibility, if any, she wishes to assume in order to get these people back to their native islands. At present there is no assurance that they would stay if they could be sent back.

During the past several years the Panama Railroad Company has followed a policy of repatriating silver employees as they were retired. Appropriations which would have financed a similar program for The Panama Canal have failed to receive the favorable action of Congress. If a policy of employing a predominantly large number of alien colored employees in the Canal Zone is to be continued, it would appear to be farsighted policy to provide ways and means of repatriating at least those families living in the Zone as the retirements of heads of families fall due. The solution to Panama's alien problem is clearly a matter over which the United States should not be expected to assume primary responsibility.

CONCLUSIONS

The time appears to have arrived when more emphasis is needed on personnel management in the Canal Zone. Large problems requiring the services of technically trained experts await solution.

The age of the giants is about to pass. The original canaldiggers who have been advanced to heads of departments and chiefs of divisions will have to retire in a few years. It is due to them that invaluable traditions of loyalty, honesty, and cooperation have been established. A public service tradition has been created which is the most valuable asset of any public undertaking.

But replacements must be made. Technically trained men are needed where self-made men formerly filled the bill. In every organization in which inbreeding has occurred and in which certain ruts of routine have been established there is need for an occasional shaking-up. New blood should be infused.

This duty naturally devolves in large part upon a first-rate personnel man. It should not be thought for a moment that he alone can revivify an organization. The chief executive must have the desire first, and he must control the work of the personnel bureau. The ideas, the studies, and the actual execution of the program are the responsibilities of the personnel director.

In order to give greater weight and emphasis to personnel management, it is recommended that the present Personnel Bureau be divorced from the Executive Secretary's department and that it be made an independent department of administration working in close co-operation with the Governor-President. It is also recommended that a director of the Personnel department be obtained from a group of public personnel experts in the United States. The department should be given as complete responsibility for personnel matters as such a unit of administration ordinarily has in a modern corporation or in the public service. It should be the avowed purpose of the personnel director to prevent ingrowing tendencies, to introduce new blood from the United States, and to devise ways and means of improving competition and morale among employees. He should be given the requisite degree of independence, but at all times he would be merely the agent of the Governor. If the dangers resulting from an ingrowing bureaucracy are to be dealt with adequately in the future, the Governor must expect to give his attention to the matter and to take constructive steps to deal with the problem all along the line.

CHAPTER IX

PRINCIPLES UNDERLYING GOVERNMENT-OWNED CORPORATIONS

N THE preceding chapters we have seen that the Panama Railroad Company and The Landson Company and The Landson Company and The Landson Company and the bly connected as administrative establishments. Because Railroad Company and The Panama Canal are inextricaof this fact it is difficult, if not impossible, to make comparisons between the Panama Railroad Company and other government-owned corporations. The possibility of clarifying and unifying the legal, financial, and administrative relations of the Canal and the Railroad will be considered in the concluding chapter. It is the purpose of the present discussion to deal with the principal considerations which apply, or may be thought to apply, to government-owned corporations generally. In the conscious establishment of criteria of excellence for public corporations we shall not only provide a basis for judging the Panama Railroad Company, but we shall also point out the lines of organization, the methods of procedure, and the benefits which might be expected from a hypothetical governmentowned corporation encompassing both The Panama Canal and the Panama Railroad Company. Such an all-inclusive corporation will be proposed in the following chapter. A discussion of the principles underlying government-owned corporations may have a possible additional value because of the existence of other public corporations, such as the Inland Waterways Corporation, and because of Congress' preference for governmentowned corporations as evidenced by the creation of several new ones in recent months."

¹Within the first few months of the Roosevelt administration Congress created the Federal Home Owners' Loan Corporation, the Federal Surplus Relief Corporation, the Emergency Housing Corporation, the Commodity Credit Corporation, the Electric Home and Farm Authority, and the Subsistence Homestead Corporation.

In this analysis we should deal with the general advantages of the public corporation, as well as with the legal, financial, and administrative factors underlying and controlling its activities. Is it true that by adopting the customary organization of industry, namely the corporation, governments can carry on economic enterprises without political interference and with the elasticity of management and the autonomy of finance found in efficiently conducted private enterprises? An answer to this query should take into consideration the method of incorporation, the scope of activities, the method of organizing and controlling the administration, the nature of the employment system, the independence and the reliability of the undertaking's finances, and the extent to which public accountability can be enforced. These questions will be dealt with fairly brieflv. and an effort will be made to avoid any unnecessary repetition of principles and policies which have already been discussed.

PROBLEMS OF INCORPORATION

In providing for a public corporation's charter, Congress has several possible courses of action from which it may choose. A special act of Congress itself may create the corporation; the new undertaking may be incorporated in the District of Columbia; finally, the charter may be taken out under the laws of a state in accordance with the discretionary action of an administrative officer or board acting in pursuance of broad powers granted by Congress.^a The Panama Railroad Corporation, due to historical accident, receives its powers from a New York charter, and in several other cases in recent years Congress has deliberately chosen state incorporation.

There appear to be good reasons for favoring national incorporation in preference to state incorporation for undertakings coming within the range of Congress' power. The right of Congress to establish corporations has been recognized for years. Congress has never made it a practice to incorporate

* Harold A. Van Dorn, Government Owned Corporations (New York, 1926), chap. xii. private undertakings, but it has brought into being public corporations, such as the Inland Waterways Corporation and the Reconstruction Finance Corporation. Direct incorporation by act of Congress involves the inclusion, in each act, of a complete list of powers and privileges conferred and of the liabilities and restrictions imposed upon the corporation. There is no general incorporation act of the federal government at the present time. Hence, there are certain disadvantages, mainly in time and effort which must be spent, of direct incorporation by Congress.

Incorporation under the laws of a state involves overlapping jurisdiction, invites friction, and renders amendments and modifications much more difficult. When a federal corporation is chartered by the laws of the state, it is the state and not Congress which gives birth to the corporation. Congress merely authorizes an administrative officer or board to form a corporation under the laws of a state. At one and the same time, the corporation is a creature of the state and an agency of the federal government. "This overlapping of jurisdiction has been the cause of some friction in the past," Van Dorn has pointed out, "and may prove a fruitful source of conflict in the future."³ Furthermore, Congress thereafter has no power to change the powers or liabilities of a state-incorporated undertaking, as it does have when incorporation is by special act or under the general incorporation law of the District of Columbia. In the case of a corporation which has lived as long as the Panama Railroad Company, the desirability of being able to make adjustments as times and ideas change will readily be granted.

It is not imperative that Congress should pass a general incorporation law, so long as the basic principles of governmentowned corporations are clearly appreciated. Flexibility is desirable when so many different types of undertaking need to be provided for. Incorporation under the general law of the District of Columbia has no particular merit, because no rights are

Jbid., p. 282.

gained which cannot be granted by a state, while there are certain disabilities which are usually not found in the corporation laws of most states. It does prevent conflicting jurisdictions, of course. All things considered, however, direct incorporation by act of Congress appears to be the most desirable practice. This being the case, it is particularly important that Congress should be well informed on the considerations which enter into the management and control of a government-owned corporation.

In laying plans for the incorporation of a government enterprise, it is important that due attention should be given to the proper scope of the corporation's activities. The powers accorded to the undertaking should be liberal, but it is possible to make them too vague. In the latter case it becomes difficult to hold the officials accountable, and there is always the danger that the corporation's activities will be expanded beyond a desirable point. "We must beware of overly large units of public management," one of the most astute statesmen of modern times recently said when interrogated concerning the socialization of industries. On the other hand, we should take care to prevent the creation of two public corporations where one would suffice; in other words, the undertaking should take in all of the administrative units clearly related to the fulfilment of a complete economic or social service. This consideration applies with great force to the present bifurcated set-up in the Panama Canal Zone. The securing of administrative integration, of effective executive control, of unified financial policy, and of public accountability are additional considerations of great importance which should be kept in mind in determining the proper scope and variety of activities of a governmentowned corporation.

FREEDOM FROM GOVERNMENTAL INTERFERENCE

One of the greatest advantages of the public corporation is that it is removed from the political arena and from constant interference from the legislature and from the financial authorities while at the same time its charter and its organization make it effectively accountable to the public for the trusteeship with which it has been charged. "It is claimed for the government-owned corporation," Van Dorn has stated, "that it facilitates the solution of the financial and business problems of such an agency and that it does not increase the difficulties of responsibility and control."

Instead of the legislature's attempting to act as a board of directors for the public undertaking, it delegates this responsibility to specially qualified citizen directors and to permanent executive officials of the corporation. Except in such matters as the choice of directors, the disposition of profits, and the establishment and alteration of general policies controlling the undertaking's operations, the public corporation is run exactly like the business corporation.⁴

In the successful conduct of a public commercial undertaking, as well as in private business, elasticity of management is necessary. This means that the directing officials must be free to make quick decisions relative to the corporation's affairs. that if one policy does not work another one may be easily and speedily substituted, that experimentation and risk-taking should not only be possible but should actually be encouraged, and that the administrative organization may be reorganized from within from time to time without the difficulties and delays of securing permission from a superior authority. In a word, an elastic, progressive undertaking provides freedom for executives of imagination; it encourages the development of that rare quality, acumen. Applying the same considerations negatively to the public corporation, it may be said that the corporation should be left alone once the legislature has determined the undertaking's fundamental powers and limitations. that the board of directors should confine its attention to policy and control and not attempt itself to administer, and that the responsibility and initiative of the general manager should be

4 The best treatment of this whole subject is found in Herbert Morrison's book, Socialization and Transport (London, 1933), particularly chaps. viii and ix.

unrestricted so long as he stays within the general limits laid down by the legislature and the board of directors.⁵

An outstanding advantage of the public corporation is that any interference by Congress requires a positive legislative act. The ordinary government establishment, on the other hand, may be constantly interfered with by legislative acts and resolutions and may even be severely crippled by the failure of Congress to make an appropriation needed to carry on work already established. The Panama Canal has been the victim of this situation, and, were it not for the Canal's reserve fund and its freedom to spend lump sums as required, it would have been seriously embarrassed at certain periods during its history. It need hardly be said that immunity from the legislature's caprice relative to appropriations is a prime essential of a government business enterprise.

FUNCTIONS OF BOARD OF DIRECTORS

A capable and active board is another requirement of the successful public corporation. The legislature can hardly be expected to delegate its trusteeship to a board of directors if the latter's members are to be mere rubber stamps. To secure directors of ability, to keep them constantly and keenly interested in the undertaking, and to keep out politics and selfaggrandizement-these are conditions essential to the success of government-owned corporations. The board of directors should not be too large; if it is, the individual interest and responsibility are almost sure to be diminished. On the board of the Panama Railroad Company there are thirteen directors, a number which on the face of things appears to be too large. However, as has been said, usually more than half of the members are past or present officials, leaving only four or five directors who represent an outside view. Moreover, it is rarely possible for all of the members of the board to be present at the

⁵ On this and related points the reader is referred to the writer's book entitled *British Public Utilities and National Development* (London, 1933), particularly chap. ix.

same meeting. When allowance is made for these circumstances, however, it still appears wise to insist upon a smaller board. The minimum number for a public board should probably be three, the maximum nine, and five appears to be about the right number for the average board.

Experience in the United States, as well as in other countries, proves that there are a certain number of public-spirited men who have achieved success in their own businesses or in the professions, and who are willing and anxious to perform a patriotic service by contributing their experience and judgment to the boards of public corporations. To discover such men and to enlist their interest is one of the most important tasks connected with the conduct of public commercial enterprises. As has been insisted previously, it appears to be wise and just to compensate directors for their services. Failure to provide for directors' fees is no defense against self-seekers, while compensation is justified for the same reasons that it is in private corporations or in other positions in the public service.

The extent to which partisan influences can be divorced from the management of public corporations constitutes one of the chief arguments in their favor. How to eliminate all traces of politics from the boards of public corporations is a problem of unsurpassed importance. It has been done, as, for example, the record of the Panama Railroad Company's Board of Directors clearly discloses. Experience in the United States, as well as abroad, points unmistakably to the conclusion that directors should be chosen solely on the basis of their experience, ability, and public spirit rather than on definite political or geographical lines. The provision in an act stipulating that no more than a certain number of directors shall be drawn from one political party and that particular geographical regions of the country shall be represented at all times seems in practice merely to invite partisanship, log-rolling, and sectionalism. An appeal to individual integrity, public-spiritedness, and national interest is more likely to bring out desirable responses from directors. The ideal system is to have the political party

in power choose more men for public boards from other parties than from its own; this advanced stage of sportsmanship and sound public management has already been achieved in Great Britain, as is illustrated by appointments to the boards of public utility trusts during recent years.

One final suggestion relative to the boards of directors of government-owned corporations may be made. A director is a trustee for the consumer, for the legislature, for the country as a whole. Why not call directors "trustees," as has been done in several cases outside of the United States? The psychological effect of emphasizing trusteeship would appear to have definite advantages, as actual experience seems clearly to indicate.

ADMINISTRATIVE RELATIONSHIP TO GOVERNMENT

In the United States, contrary to the practice in Great Britain, it has been customary to make the head of the department of government most closely identified with the work of the economic undertaking a member of the corporation's board of directors. For example, the Secretary of War is a member of the board of the Panama Railroad Company, and, as representative of the United States government, he votes the stock of the government. By means of this official connection, a definite line of responsibility is maintained between the public corporation on one hand and the President and Congress on the other. Just the opposite policy, however, obtains in Great Britain; there the Minister in charge of the department affected has purposely been kept off of the controlling board of the public corporation, the Minister maintaining merely a general oversight from the outside and interfering only if there is an abuse of power.⁶ In other words, all of the trustees are citizen members, and hence they vote the stock of the corporation without consultation with the Minister. There is this important difference between the circumstances in the two cases, however: In the United States the entire stock of

⁶ Cf. ibid., pp. 44, 58, 315; see also his article entitled "British and American Utilities: A Comparison," University of Chicago Law Review, I (1933), 265-82.

public corporations is owned by the government, whereas in Great Britain it is owned by private stockholders. The private stockholders have no voting rights in British public corporations, their interests being taken care of by the governmentappointed trustees.

The United States and Great Britain have done more than any other countries to develop the public corporation, and hence comparisons between them are frequently helpful. Is the political head of the government department given too much influence over the policies of the government-owned corporation in the United States, and would it be wiser policy to eliminate him from the Board of Directors altogether, as the British have done? Without reference to what may be appropriate in Great Britain, the writer is convinced that inclusion of the department head on the board of the public corporation in the United States is definitely desirable. In the first place, the department head is made responsible for the satisfactory conduct of the corporation, and hence membership on the board is the effective means of acquiring knowledge and accountability. Again, since all of the stock is owned by the United States, it is necessary and proper that one of its high officials should vote the stock. As a matter of fact, department heads do not appear to have had an undue influence over the decisions of public boards. This is definitely true, at any rate, of the Panama Railroad Company. Except in the matter of voting the stock, all members of the board have an equal voice. Dividends have not been voted by the Panama Railroad Company unless a majority of the members were convinced that the financial showing of the corporation justified such action-no matter what the Secretary of War happened to think. In other words, inclusion on the board of directors of the public corporation of the Secretary of the department concerned with its affairs results in effective accountability to the cabinet member charged with responsibility and establishes a liaison to the President, Congress, and the public, while at the same time the political

official's influence is not so great that he dominates the other directors.

An active board of directors, consisting of individual members who possess business ability and who have the courage of their convictions, is an essential foundation on which to build the management of public corporations. A board that does not really function is worse than none at all. Moreover, the board of directors should be the policy-formulating unit of the corporation and should exercise complete surveillance and ultimate control over the management. An advisory board, possessing no power of decision or control, is not satisfactory. It is believed that this view is supported by comparing, for example, the conduct of the Panama Railroad Company and the Inland Waterways Corporation, the former having a board which really functions and the latter possessing merely an advisory board which has no power to control.

POWERS OF GENERAL MANAGER

It is not contradictory to say that the board of directors should not interfere with the detailed management of the corporation. The general manager should be given the utmost freedom in carrying out the policies of the board and in deciding problems as they arise. There are more or less distinct functions which divide the relative duties of the board and the management. The board draws up large policies, considers past records, and approves or criticizes the actions of the management; the general manager puts the program into operation, makes discretionary decisions as they arise, and recommends policies and actions to the members of the board. Needless to say, this relationship depends in large measure on the personalities of the board and the management. If the general manager has the complete confidence of the board, and if he has energy and acumen, he will be given all of the freedom which might be asked for in the ordinary private corporation. Such has been the case in the relations of the Vice-President and the Board of Directors of the Panama Railroad Company.

PRINCIPLES OF GOVERNMENT CORPORATIONS 201

Were it not for the fact that the principle has at times been violated, it would probably seem superfluous to say that in a public commercial undertaking the reins of administrative control should be definitely placed in the hands of one person. the manager, and that he should be given complete jurisdiction over every phase of the corporation's activities. In a word, a public corporation needs to have complete administrative autonomy and a unified executive if the best results are to be achieved. Every phase of a business has a bearing upon almost every other phase, so, if authority is not unified, there cannot be complete integration. If there is not one undisputed leader, friction is almost sure to result, the morale of employees will suffer, and an atmosphere of vacillation will develop. These observations are so commonly and universally accepted that administrative autonomy and unified executive authority may almost be referred to as primary principles of management. Because of the peculiar historical and economic factors entering into the Isthmian situation, however, the Panama Railroad Company does not conform to the tests we have just mentioned. It will be one of the principal objects of the following chapter to propose a single public corporation for the Canal-Railroad activities, thereby providing the solution of some of the basic difficulties in the present set-up.

CIVIL SERVICE AND INDUSTRIAL SERVICE

The general manager of the corporation, assisted by an alert personnel bureau, should have power to appoint, promote, discipline, and remove any and all of the employees of the undertaking. Public corporations have never been made subject to Civil Service laws and regulations, and it appears that they should not be. Of course, the merit system and permanence of tenure are every bit as important in public commercial undertakings as they are in ordinary government departments, but at the same time it may be reasonably insisted that these objectives should be achieved without introducing the rigidity which accompanies the usual Civil Service regimen. So long as

promotion according to strict seniority is typical of the Civil Service, and so long as incompetent and unambitious people cannot be easily rooted out, public commercial undertakings should not adopt the Civil Service system in toto. The writer is one who believes that these defects can be cured in time and that Civil Service regulations are not necessarily less desirable than unrestricted business methods of hiring and firing. However, it does appear to be clearly objectionable for a fullfledged Civil Service system to be superimposed upon a public commercial undertaking by one comprehensive act. Rather, the best features of the Civil Service, i.e., the merit system, permanence, and allowances of various kinds, should be absorbed gradually by the public corporation. It is possible to achieve the benefits of a Civil Service system by the establishment of traditions and practices, without formalizing and rigidifying the regulations relative to personnel management.

In the public corporation there should be an awareness and an assurance among all employees that effort, ability, and inventiveness will be rewarded by rapid promotion and by increased responsibility and remuneration. This stimulus to the employee's ambition has been the best feature of private business, and evidence of the fact that it does not have an opportunity to operate so effectively today as it has in the past is an extremely discouraging feature of the rapid changes which have been occurring in the economic order. Government service has become notorious, exaggeratedly so, for its time-servers, its mediocrity, its failure to reward genius, effort, and creativeness. No matter how much the Civil Service system is improved, it will probably continue to be difficult for discerning executives to promote young men of great promise with the same freedom and dispatch found among business leaders. This heritage of the private corporation should be jealously guarded and fostered by the public corporation. For this reason, it appears to be definitely objectionable for Congress to apply acts and regulations applicable to the Civil Service to the staffs of government-owned corporations, as has been done in certain

cases in the past. For the time being, at least, the Civil Service and the industrial service of the state should be distinguished, even though permanently they may not be kept distinct.

The industrial corps for public corporations is available and will continue to be trained in the technical schools and the departments of business and public administration of the universities. These men not only have the technical training, but most of them become acquainted with public administration and the philosophy underlying the public service. It is encouraging to observe that engineering schools have begun to introduce courses which will prepare students for government administration. From our institutions of higher learning public corporations may choose graduates of great promise, and thereafter put them through a period of testing and apprenticeship before attaching them permanently to the staff. In the Canal Zone, for example, it should be possible periodically to take a small number of graduates in engineering and administration from reputable institutions in the United States and give them a two-year trial, after which the successful candidates would be placed in positions leading to assured promotions. In our public corporations we need an "Administrative Class," consisting of thoroughly trained persons who can be counted upon as future administrators.

FINANCIAL CONSIDERATIONS

The principal advantages of a government-owned corporation over an ordinary government department are to be found in the ease and independence with which the undertaking's financial affairs and purchasing operations can be conducted. The ability to raise capital funds, the right to expand the business, the necessity of earning money before it can be spent, the assurance that income depends upon economic factors rather than upon the benevolence of the legislature, the right to borrow money on the corporation's credit, the freedom to build up reserves for the replacement of plant and the expansion of the business, the knowledge that accounts can be kept on a business basis and audited in conformity with commercial practice, and the desire to run the business as efficiently as possible because the enterprise will be judged on its own financial showing—these are some of the respects in which the public corporation excels on the financial side in contrast with the government department.

The Panama Canal, as has been said, enjoys more financial freedom than does the ordinary government department, but it does not possess all of the rights and immunities of the Panama Railroad Company. The strongest argument in favor of incorporating the entire Isthmian enterprise is that the management would enjoy greater liberty with reference to capital improvements and purchasing as a result.

Corporate revenues are derived from earnings, while departmental appropriations come from Congress. The legislature fixes the exact amount which may be spent for each particular service. This is a practice which would be an onerous straitjacket for a commercial undertaking, since it would take away the necessary elasticity needed when economic conditions change and unforeseen emergencies arise. Where an undertaking is dependent upon markets and consumers' demands, the specific estimates of revenues and expenditures cannot be determined with anything like detailed accuracy. This consideration applies to the Panama Canal.

Corporate finance is more likely to encourage efficiency and economy than is departmental finance. When Congress makes the appropriation, there is a constant temptation for the department to be extravagant in case a prospective surplus appears at the end of the year, inasmuch as all such sums must revert to the Treasury; in the public corporation, on the other hand, surpluses are expected and nourished, inasmuch as the success of the venture and its ability to expand are judged by the earnings remaining at the end of the year.

The public corporation starts out with a lump sum, the capital stock, with which it can meet emergencies and develop the

business as necessity and experience dictate; the great tragedy of the government department is that no matter how efficient or how successful it may be, the means whereby it may expand are controlled firmly by the legislature instead of being in its own hands. With its nest egg the public corporation may divert funds originally intended for one phase of the business to another, if wise business policy so counsels. Apropos of the immediate discussion. Van Dorn has related an instance from the history of the Inland and Coastwise Waterways Service before it became a corporation. The service, it seems, was in need of terminal facilities for the development of its new transportation lines, and an appeal was made to Congress, which appropriated the necessary funds. However, the company found itself unable to build terminal facilities because there was no provision in the act specifying that land might be purchased on which to erect the improvements. In order to get around this difficulty it was necessary for the company to loan money to the terminal city in order that the municipality might buy the land and thereafter lease it to the company. Although The Panama Canal has never been driven to such extreme measures, this incident is illustrative of the cramped business dealings and the administrative hardships which result when a public commercial undertaking must conform to government financial practice.

Not only does the public corporation have an initial financial advantage over the ordinary government establishment, but it can borrow on its credit as emergencies arise or as the desirability of expansion occurs. If The Panama Canal were incorporated, for example, it could issue bonds or make shortterm loans from banks—powers which it lacks at the present time. It must be obvious that any commercial undertaking, particularly a competitive one, must be vouchsafed the right to borrow on its credit, because sooner or later it is almost sure to need this right.

Congress has usually placed an outside limit on the amount which a government-owned corporation will be permitted to

borrow, and this is probably a wise precaution. However, if all enterprises were managed on a conservative pay-as-you-go basis, as has the Panama Railroad Company, there would be little necessity to go into debt.

The right of a public corporation to retain its annual earnings over and above a fixed payment, which goes to the Treasury, and to use said profits to build up a financial reserve and to undertake financial improvements—this right is proof positive of self-contained finance. Without such a guaranty no public corporation can be expected to be a complete success for very long. The right to retain profits provides an incentive which produces efficiency and enthusiasm. Any capable executive values the assurance that his particular enterprise has financial reserves that it can fall back on, and it is only human to want to expand one's business. The significance of these incentives should not be minimized. Judged by any standards, it is sound policy for an enterprise to retain its profits and to expand its services so long as it is rendering an efficient and a profitable service.

A final advantage of corporate finance is that the undertaking is free from the usual system of government auditing and accounting. Here again the public corporation has more freedom without reducing the protection of the public interest. Generally speaking, government accounts differ from business accounts; for one thing, the subject matter and the objectives are not the same. Government accounts merely show where money goes, primarily how it is spent; business accounts indicate the complete financial position of the corporation, emphasizing the profit-and-loss statement. Hence, the public commercial undertaking should be free to adopt the most modern accounting methods of private business. Moreover, the public corporation should secure its outside audit from a reputable firm of commercial auditors, just as do private corporations. These firms are better versed on the accounts and the operations of a public commercial undertaking than are the agents of the Controller-General's office. The latter's

attention is confined almost entirely to spending departments which perform functions not of a commercial character; it is natural, therefore, that government auditors should be interested in honesty and legality to the almost complete exclusion of matters relating to efficiency. The commercial auditor, on the other hand, makes it his business to point out unbusinesslike or wasteful practices.

There is a close relationship between finance and purchasing. The greater freedom which public corporations enjoy in making purchases is one of the most convincing reasons for choosing this type of organization for commercial undertakings of the government. It is not always desirable to accept the lowest bid, as the government department must. On the other hand, it is frequently advantageous to have an increase and decrease clause written into a contract when dealing with certain classes of commodities. Again, the rule that no government contract can be modified except in the interest of the government and with the approval of the Controller-General sometimes works a hardship. In short, government purchasing is controlled by strict laws and regulations; these are undoubtedly necessary and proper for the ordinary political departments, but they work hardships on public commercial undertakings. The public corporation must be responsive to consumer demands and the competition of the market place, and hence its operations, including finance and purchasing, need to be elastic.

ACCOUNTABILITY AND PUBLIC CONTROL

The government-owned corporation provides the foundation for elastic and progressive management while at the same time it contains effective means of assuring responsibility and accountability to the general government. In the past it has been assumed that the accountability of a regulated undertaking is in direct ratio to the number of checks and interferences imposed upon it from the outside. Judged by this standard, the public corporation would be comparatively unaccountable.

But the criterion of effective public control, it is increasingly realized, is not the amount of interference but rather the results produced.

Is it possible to keep the public undertaking's policies in substantial conformity with the basic social and economic objectives of the general government? This is the first test of public accountability. Again, does the undertaking produce satisfactory service in an efficient manner, and is the management's record relative to finance and the treatment of employees a commendable one? This is another test of prime importance. If a public undertaking rates well on all these scores, the methods of public control employed are only incidental.

Provided the public interest is protected, the less interference there can be with commercial management, the better. Outside control eventually divides responsibility, causes resentment on the part of the management, and tends to restrict the elasticity and progressiveness which we have been praising.

It follows that the most salutary checks are those which are contained within the fundamental powers and limitations of the enterprise—internal controls as contrasted with outside regulations. This is the kind of public control found in the public corporation. Important limitations are contained in the authorizing legislation relative to maximum indebtedness, permissible borrowing, anticipated profits and their disposition, periodic audits, required bonding of employees, principal responsibilities of the board, general powers of the chief executive, fundamental personnel provisions, financial liability to creditors, and legal liability to suit.

The law creating the government-owned corporation provides for administrative, financial, and legal accountability to external authority. Administrative liability is brought about principally by the department head's acting as a connecting link between the corporation and the general government—as the Secretary of War does, for example, in relation to the Panama Railroad Company. The outside audit of the corporation's accounts is the most important financial check. Finally, the corporation can be proceeded against in the courts in case of tort, or in case it is thought to have violated its corporate powers.

One of the advantages of incorporating a public commercial undertaking is that the enterprise can sue and be sued as freely as can a private corporation. It will readily be agreed that a public undertaking performing economic services, at times in competition, should be as completely liable to suit as any other entrepreneur. Other government establishments, partaking of sovereign immunity, cannot be sued, of course, unless the legislature has waived their immunity by a legislative act. In order that no question of immunity may possibly arise, Congress, when creating public corporations by direct action, has inserted a specific provision authorizing the corporation to sue and to be sued. No doubt this is a desirable precaution. However, when the Emergency Fleet Corporation attempted to claim that it partook of the sovereignty of the federal government and hence could not be sued, the Supreme Court held that it was answerable for its acts as was any other corporation, even though it was an agent of the government.⁷ A public corporation is an autonomous organization with a legal status separate and distinct from the government which creates and owns it.

The liability in tort of public corporations is well illustrated by one of the leading cases relative to the Panama Railroad Company, the Curran case.⁸ In this action for damages against the corporation, the plaintiff, a Mrs. Curran, had injured herself by falling on the freshly oiled floor of a Canal Zone commissary. The company was charged with negligence in permitting the floor to be in such an unsafe condition. The company denied liability on the ground that it operated the commissary not under the provisions of its charter but merely as an agent of the government. However, the court held that the corpora-

¹ Sloan Shipyards Corp. v. U.S. Shipping Board Emergency Fleet Corp., 258 U.S. 549 (1922).

* Panama Railroad Company v. Curran, 256 Fed. 768 (1919).

tion owned the property and was therefore responsible for its proper administration. Making a public corporation liable for its torts is not only desirable in that it benefits aggrieved individuals, but it is good for the undertaking itself inasmuch as such responsibility fosters careful and efficient management.

SUMMARY

The public corporation is an operating undertaking of which the owner, the government, is the holding company. The corporation is a desirable form of organization and control for public commercial undertakings. Because of its freedom from governmental intervention in management, the governmentowned corporation enjoys the elasticity and autonomy which are required for efficient and progressive administration. Not only does the public corporation operate under conditions favorable to successful management, but in its fundamental powers and restrictions effective methods of assuring responsibility for its acts are to be found.

With reference to the corporation's control and management it has been suggested that incorporation should take place preferably by direct action of Congress itself; that the scope of the undertaking's powers and services should be large enough to prevent duplication and to guarantee effective management. but not so large as to cause overexpansion and vagueness of limitations; that the board of directors should really function as a policy-forming and controlling unit, and that the board should not be too large, that it should be non-partisan, and that its members should be compensated; that the Secretary of the appropriate federal department should be a member of the board of the public corporation and should assume responsibility for its successful conduct but should not interfere in detailed management; that the general manager of the corporation should enjoy the utmost freedom in carrying out policies and in recommending new ones; that the management should be autonomous and that the reins of authority should be held firmly in the hands of the chief executive of the corporation;

PRINCIPLES OF GOVERNMENT CORPORATIONS 211

that the best features of the Civil Service should be absorbed. by the public corporation, but that Civil Service regulations as a whole should not be taken over: that elasticity of management, and promotions without strict reference to seniority. should be fostered: that an "administrative class" should be encouraged and that an apprenticeship for young university graduates should be sponsored by the public corporation: that financial reserves should be built up; that modern business accounting methods should be adopted, and that commercial audits should be employed: that the freedom of private purchasing methods should be retained instead of adopting the strict regulations of government purchasing; that important internal controls are more likely to bring about effective public control and successful management than are meticulous regulations imposed from without: and that there should be as much legal liability on the part of the public corporation as there is in the case of any other commercial undertaking.

The methods of administration employed in the most successful business corporations, added to the public service philosophy engendered in the government service, should provide a formula for instrumenting the new working relationships between government and industry.

CHAPTER X

CONCLUSIONS AND RECOMMENDATIONS

GENERAL APPRAISAL

THE government-operated services in the Panama Canal Zone should be viewed with pride by American citizens. This is the general reaction of the writer after seeing the Isthmian services in actual operation and after considering the record of twenty years of civil government and business operation. Reliable standards of comparison are difficult to single out, but it is safe to say that the administration of the Canal Zone compares favorably with the best examples of British colonial administration, according to competent observers, and that it is easily the most successful government enterprise under the American flag outside of continental United States. The government of the Canal Zone may well be considered a model for the territories and dependencies of the United States.

The general results of business management in the Canal Zone supply additional confidence in the ability of government to conduct economic services satisfactorily, judged by any standards of comparison. When in a recent appropriation hearing a member of Congress said, in referring to the Panama Railroad Company, that it is "the one successful case of government operation that I know of," he was clearly biased or uninformed regarding many other public undertakings, but his remark did have the merit of emphasizing the business success of the Isthmian services.

Consideration of the results achieved in the Canal Zone strengthens the belief that there are no inherent reasons why private ventures should succeed or why public commercial undertakings should fail. In the Canal Zone one finds evidence of the falsity of the gospel that has been preached in the United States for years, namely, "Government is by its very nature inefficient." Government has no nature. A growing body of evidence points to the fact that, assuming the desire and the intelligence to create the proper conditions, public management of economic services produces results which are every bit as satisfactory as are corresponding results under private administration.

In the Canal Zone both the desire and the conditions are designed to achieve success. However, some of the circumstances surrounding Isthmian administration are so singular that they need to be weighed in making general deductions. In the first place, the necessity of great efficiency in order to assure military preparedness must be added to the other incentives inspiring the Canal Zone administration. Then, too, geographical remoteness guarantees a minimum of political meddling; in fact, the Zone is more or less an isolated laboratory. The head of the establishment is chosen strictly on the basis of merit rather than for partisan reasons. Perhaps there are other conditioning factors which affect the comparison, but, like the method of selecting the Governor, they are capable of being followed in a general fashion elsewhere. It is important that we should be aware of the peculiarities of the Isthmian situation, but it is to be doubted whether the singular factors which have been mentioned bear so much weight that they vitiate attempted deductions relative to public management generally.

The singular factors entering into the situation clearly do not influence the result so much as do the considerations which are common to all undertakings, both public and private. One important lesson that has been learned as a result of the depression is that of the central importance of honesty. As has been stated, it is doubtful whether any enterprise anywhere surpasses the record of faithful, unblemished stewardship recorded by the officials and employees of the Isthmian enterprises. It is better that management should be scrupulously honest than that it should be brilliant. Many of our most

glamorous private businesses have skyrocketed only to crash on the cupidity and dishonesty of a brilliant executive.

An indispensable requirement of good management is capable leadership, and this the Canal Zone has obtained from the Corps of Engineers, the acme of government administration in the United States. The desire to serve, or what may be called the public service ethic, is highly developed in Army administrators, and it is also found to a noticeable extent among Canal Zone officials generally. This spirit, this state of morale, is certainly to be numbered among the conditions producing successful administration. Furthermore, as has been said, there is a corporate and an individual pride of accomplishment, and a pride of service, which permeates the Canal Zone services; this is one of the virile roots of enduring excellence. Then, too, the remuneration and the vocational incentives of Canal Zone employment are favorable. Employees know that they will never be rich and that they cannot own a business of their own, but they have the assurance that, by applying themselves, they can live comfortably and improve their status. Finally, the esprit of the Canal Zone is influenced somewhat by competition. The Panama Canal competes for traffic with the Suez Canal, and officials are sensitive to this fact. There is another reason for this sensitiveness to competition. On several occasions persons connected with the Canal-Railroad services have remarked to the writer, in substance, "If anything goes wrong here, every enemy of government enterprise in the United States will make the most of it; the seagoing public of the world judges the United States government by its impressions of services conducted here." These are some of the more important reasons and incentives which help to explain the success of the Isthmian undertaking over an extended period of time.¹

The Canal Zone enterprises have been a success when judged

¹On the subject of incentives, see the author's article entitled "The Potential Incentives of Public Employment," *American Political Science Review*, XXVII (1933), 628.

by ordinary business standards. The Isthmian undertaking has been a satisfactory financial investment for the United States government.³ In his book on the Suez Canal, Lieutenant Colonel Sir Arnold T. Wilson points out³ that the Suez Canal cost about thirty million pounds to build, while the Panama Canal cost seventy-five million pounds; the cost of maintenance and operation, he says, is in about the same proportion. Yet, in 1931, the Suez Canal dues were higher than the Panama Canal's "by more than 25 per cent per net ton of shipping passing, and by about 30 per cent per ton of cargo carried."⁴ Relative to the comparative cost of operating and maintaining the world's two greatest artificial waterways, the eminent British writer says:

Over the whole period the net canal expenses of the Panama Canal were over 48 per cent of the canal revenue, while for the Suez Canal gross expenses (excluding bond interest) were under $13\frac{1}{2}$ per cent.... For the last ten account years Panama Canal net expenses were under 37 per cent of receipts, while Suez Canal gross expenses (excluding bond interest) were about 16.8 per cent of receipts. But out of a total of \$9,830,000 for net canal expenses in 1031-2, about \$4,055,000 were in respect of civil government, health, and other services not strictly belonging to the running of the Canal. If these sums be deducted, canal expenses were about 27 per cent of canal and business receipts for 1931-2, as compared with 20.2 per cent for the Suez Canal in 1031 and 22.3 per cent in 1032.5

This comparison is extremely interesting, but, in view of exchange fluctuations, volume of traffic, and other factors complicating the analysis, the difference in percentages does not necessarily gauge the comparative efficiency of the two undertakings.

Sir Arnold's observations relative to the economic significance of the Panama Canal are equally instructive. He states:

The Panama Canal, as was anticipated, had a very beneficial effect upon the trade of the United States. Before the war, the United States purchased 48 per cent of its imports in Europe and 16 per cent in Asia.

- * The Sues Canal: Its Pasi, Present, and Future (London, 1933), p. 144.
- * Ibid., pp. 144-45. \$ Ibid., p. 147.

^{*} See supra, pp. 28, 30-31.

In 1924 it purchased 29 per cent in Europe and 31 per cent in Asia. China, Japan, and Australia have bought more in North America and less in Europe since the Canal was opened.... Much of the trade of Asia has, as a consequence of the Panama Canal, been diverted to the United States from Europe; of that we have no right to complain. This tendency has been accentuated by the increasing disparity between Suez and Panama Canal rates, which unless corrected will have serious results for Europe.⁶

When, in addition to the foregoing data, the fact is noted that the Panama Railroad Company has paid into the Treasury of the United States over a period of thirty years dividends equivalent to 125 per cent of its capital stock, the financial record of the Canal-Railroad enterprise is further enhanced. Then, too, the capital improvements have been constantly added to, with the result that the services have become increasingly more attractive. The Panama Railroad Company alone, as has been said, now owns capital assets amounting to thirtyfive million dollars, although its capital stock is still only seven million dollars.

With a financial record of which they may well be proud, and with the assurance that the Isthmian undertakings are honestly and ably managed, it is pardonable if Canal Zone officials should have a feeling of complacency relative to the Isthmian administration. A feeling of pride there certainly should be, and this attitude is made somewhat militant because of the almost continuous attacks of various and sundry interests which are attempting to restrict or to embarrass the Canal Zone services. However, those responsible for Isthmian administration should realize—and they apparently do realize—that even good administration can always be improved. As a matter of fact, a feeling that the means and methods of doing work can, and need to be, improved is the only safeguard against retrogression and insensitiveness to consumers' desires. With these considerations in mind, and with the knowledge that the assumptions and the discoveries of public administration differ somewhat from those of Army administration (or even engi-

6 Ibid., pp. 150, 151.

neering administration), the writer will suggest several constructive proposals which he believes might further improve the overhead management and the operating services of the Isthmian enterprises.

The principal suggestions relate to the single incorporation of all Canal Zone enterprises and interests, relations with Panama, departmental reorganization, financial organization, and personnel management—questions which have been raised at one point or another already.

PROPOSED PANAMA CANAL CORPORATION

The most definite and important conclusion which the writer has reached as the result of his survey is that Congress should form a corporation to be known as the Panama Canal Corporation. This government-owned corporation would absorb the properties and the interests of the two existing organizations, The Panama Canal and the Panama Railroad Company. The formation of such a unified legal and administrative entity would involve the complete absorption and disappearance of the two above-mentioned institutions. The proposal is by no means a new one. A great deal of thought has been given to the idea on the Isthmus, and there appears to be considerable support of it.

The present division of legal, financial, and administrative responsibility between the Panama Railroad Company and The Panama Canal should be permitted to remain unaltered unless it can be demonstrated that there are disadvantages in the present bifurcated system which would be corrected by a new incorporation. The arguments in favor of maintaining the *status quo* are that the present arrangement appears to operate without undue friction and that the net results are generally satisfactory. Then, too, it might be difficult to develop sufficient interest in Congress, and to obtain the time and consideration from Congress required for such a change. Again, the Panama Railroad Company owns valuable franchises and concessions, and these interests would have to be taken into consideration and amply safeguarded in any proposal looking toward a new legal foundation. These appear to be the principal problems accompanying the proposed consolidation; the administrative and financial adjustments would seem to be fairly simple.

The arguments in favor of unifying the present bifurcated system, and of forming a new corporation, appear to the writer so convincing that the difficulties just mentioned are greatly outweighed. In the first place, The Panama Canal would enjoy all of the advantages of the government-owned corporation which were analyzed in the preceding chapter. The Panama Railroad Company is unable to take advantage of all of the benefits deriving from the public corporation, because, so far as administration on the Isthmus is concerned, it is merely the tail of the kite. An illustration in point is the necessity of the corporation's following the government personnel regulations devolving upon The Panama Canal; this is clearly an instance in which the management is forced to accept the weaker of two systems.

Concretely, the greatest advantage of incorporation to The Panama Canal would be the greater freedom which would result with reference to finance and purchasing. Consider the financial benefits. On the basis of the present capitalization, or possibly on an adjusted one, the corporation would be expected to earn sufficient revenues to take care of all of its financial obligations, including interest, reserves, and bond commitments, if any. The present statistical computation of 3 per cent interest, a mere bookkeeping entry, would be converted into a definite obligation, presumably to the United States Treasury. The earning of 3 per cent might be, and probably should be, increased. It appears that this could be done without greatly increasing Canal tolls, and without destroying the advantage in toll charges which the Panama Canal now enjoys over the Suez route.

The Panama Canal Corporation would be responsible for building up its revenues for replacement and expansion instead

of having to depend upon Congress' knowledge and benevolence. The members of Congress are too far away to keep in close touch, and most of them are wholly ignorant of the requirements and the accomplishments of the Canal Zone. So long as the operating and capital requirements of the Isthmian services are dependent to any extent upon the appropriation powers of Congress, the Canal Zone enterprises will remain in an uncertain and even, it is barely possible, a precarious financial situation. Stating the case affirmatively, self-contained finance is essential to the business-like conduct of public commercial undertakings. At present, the Canal's finances are controlled almost wholly by Congress; incorporation would result in business-like freedom. Among those who have written on the requirements of public commercial undertakings, there is unanimous agreement relative to the necessity of self-contained finance. One of the first and one of the best analyses of the problem is that of Mr. W. F. Willoughby, formerly Director of the Institute for Government Research in Washington. D.C.7

Not the least of the advantages of incorporating the entire Canal Zone establishment would be to free Congress from minor duties relative to the Panama Canal which eat into its time and ability to deal with larger issues. Although an indirect result, this is an important one. As Mr. W. F. Willoughby and other writers have pointed out, Congress should delegate to other hands the administrative and routine matters relating to the District of Columbia, the Panama Canal, and various and sundry other federal establishments. The public corporation is ideally designed to accomplish this purpose, Congress thereafter acting merely as a holding company. Instead of Congress' acting on the estimates and voting the appropriations, the board of directors of the Panama Canal Corporation, assisted by the permanent officials, would do so. Congress should never

¹See his chapter entitled "The National Government as a Holding Company: The Question of Subsidiary Budgets," in *The Problem of a National Budget* (New York, 1918).

have to devote its valuable time to the affairs of the Panama Canal except in case of serious criticism of the Isthmian administration or in case of a desire to alter the basic policies relating to the Canal Zone.

The creation of the Panama Canal Corporation would result in the undertaking's becoming free of the Bureau of the Budget, so far as appropriations are concerned, and of the Controller-General's office in the matter of accounts. These results are natural corollaries of self-contained finance. If Congress chose, it would be possible to have the periodic audits made by the Controller-General, but for reasons stated in the preceding chapter a commercial audit appears preferable. Congress might do as Parliament has done in the case of the British Broadcasting Corporation—stipulate a commercial audit as the normal procedure, but provide also for a government audit in case the government has reason to be suspicious or dissatisfied. This reserved power, it may be added, has never had to be used in the case of the British Broadcasting Corporation.

Freedom of purchasing operations under a corporate organization, as compared with The Panama Canal's obligation to follow federal purchasing regulations at present, is one of the most important reasons for consolidation and incorporation. The differences between purchasing regulations and procedures under a governmental system and under the greater freedom of the public corporation have already been analyzed.⁸ Suffice it to say that the federal regulations pertaining to purchasing sometimes produce a vexatious and unsatisfactory situation for The Panama Canal. Greater freedom relative to financial operations and with respect to purchasing, it may bear repeating, are the greatest needs of the present organization and they are needs which can be fulfilled under the public corporation.

It has been pointed out that purchasing administration is conducted very ably, both in the New York and Washington

^{*} See supra, pp. 118-22.

offices and in the commissary requisition and general warehouse divisions on the Isthmus. But officials concerned with these functions freely admit that stringent federal regulations sometimes result in buying material, such as paints and machinery, when the unsatisfactory quality is fairly well known in advance; but it is impossible to circumvent the federal requirements relative to the lowest bidder. The purchasing requirements of commercial undertakings, such as the Canal Zone services, are quite unlike those of ordinary political departments. The greater freedom and elasticity of purchasing provided by the public corporation is one of the most convincing reasons for adopting the proposed plan of incorporation.

Consolidation of the Panama Railroad Company and The Panama Canal by the creation of a single, unified corporation would bring about an autonomous administration and a unified executive control-desiderata which are not fully realized at present. This aspect of the problem has more practical importance than might at first thought be attached to it. Legal consolidation would obviate the present anomalous situation wherein properties are owned by the corporation but administered by the Canal; it would no longer be necessary to have both organizations invest in a property, or to have one pay rent to the other; it would no longer be necessary to make an arbitrary division of administrative overhead between the two organizations, with results which in the past have displeased almost everyone concerned; and it would no longer be necessary to maintain the questionable system of institutional discounts. for it would remove the guid pro guo consideration existing at present between the Canal and the Railroad.

The Canal-Railroad establishment is not an autonomous and centrally directed one. To be sure, the Governor is also President of the Panama Railroad Company and is in control of all administration on the Isthmus; his practical direction of the corporation's affairs generally has constantly increased. But the executive head of the Panama Railroad Company, judged by business comparisons, is the Vice-President of the company in New York; he presides at meetings of the board, and its members look to him for leadership and responsibility as general manager. Then, too, the New York office runs the steamship line, handles commissary purchasing, invests the corporation's funds, compiles the annual balance sheet and report, with little or no advice or assistance from the Governor-President. This is simply to state a fact. No criticism is intended, beyond the mere pointing-out that the present set-up lacks both autonomous administration and unified executive leadership.

The establishment of a unified organization would make it possible to apply business comparisons rigorously to the methods employed and the results achieved by the corporation. This is not always possible at present, because of the separation of financial and administrative authority. In such matters as the division of administrative and accounting overhead, for example, or in the charges made by one department to another, the investigator is likely to find himself nonplussed. A great deal of arbitrary action could be obviated, it is believed, by substituting a single corporation for the present confusing system.

The reasons favoring the creation of a single corporation the Panama Canal Corporation—are, in the writer's view, completely convincing. This is the recommendation, this is the constructive improvement, which underlies all others. The replacement of the dual system by a single corporation is necessary and desirable because it would result in greater freedom of finance and purchasing; it would relieve Congress of duties which it should not continue to carry and which the corporation itself could handle more advantageously; it would achieve administrative autonomy and unified executive control—essentials of any efficiently conducted undertaking; and it would lay the foundation for strict business comparisons. Incorporation was suggested many years ago; Congress should delay no longer.

RELATIONS WITH PANAMA

The present administrative instrumentation for carrying on relations with Panama results in duplication, delay, and failure to present a unified consistent program at all times. These results are attributable to the fact that the United States possesses two agencies on the Isthmus whose business it is, in whole or in part, to deal with issues arising between the governments of the United States and Panama.

Owing to the complicated nature of the problems, a large part of the Governor's thought and time is devoted to questions which involve relations with Panama; issues such as the Colon properties, commissary operations, and the proposed transisthmian highway force themselves to the forefront of the Governor's attention, and remain there. But these questions are also being considered, and negotiations are being carried on, by the American Minister who is located a few blocks away in the Republic of Panama. The resulting procedure whereby the respective interests of the United States and the Republic of Panama are composed is complicated, cumbersome, and generally unsatisfactory.

The American Minister is changed every few years, just about the time he has grasped the complexities of the issues, historical, economic, military, and cultural, which have remained mooted for years. He comes to his position, as a rule, without any particular knowledge of Isthmian problems and sometimes with no past diplomatic experience. It should be stated, however, that certain of the American Ministers designated to Panama have been able and greatly respected.

The real difficulty is a fundamental one—an organizational and procedural one. Let us assume a hypothetical case. The President of Panama, let us say, talks with the American Minister about a particular issue; the Minister may or may not communicate with the Governor; the Minister also gets in touch with the State Department; the State Department then advises the Minister; the Minister may or may not pass on the advice to the Governor; in the meantime, the Governor may have communicated with the Secretary of War, whose opinion may be in direct conflict with that of the Secretary of State. Conclusions are reached by State Department officials who are two thousand miles away. But very few final decisions can be reached, because the most important outstanding issues relate to the rights of the Panama Railroad Company, a public corporation over which the Secretary of State has no authority. In recent months the President of the Republic of Panama has negotiated by direct personal contact with the President of the United States. The Governor and the Secretary of War may have one policy; the American Minister and the Secretary of State may have another. One branch of the government may be saying one thing to Panama, while another may hold quite a different view.

In the writer's judgment, the present complicated machinery of negotiation is one of the principal reasons that long-standing issues have not been composed. There should be a unity of policy relative to Isthmian affairs, and there should be a direct relationship with Panama. At times the State Department appears to have been better informed concerning Panama's side of the question than it has concerning the Canal Zone's; in certain instances the Secretary of War has had to appeal directly to the President in order to prevent some action which the Secretary of State favored but which the Isthmian officials considered inimical to the rights and interests of the United States.

The best solution of the problem, as the writer sees it; is to charge the Governor with the complete responsibility for conducting relations with Panama. The American Minister to Panama is an extra spoke in the wheel. Consular officials, who would take care of the personal welfare and the trade relations of citizens of the United States, would remain in Panama. If it seemed wise, the State Department might send certain Secretaries to the Canal Zone to assist the Governor in conducting relations with Panama and to act as advisers to the Governor in matters involving the larger policies of the State Department. Such an arrangement would, in the long run, be beneficial to the State Department itself.

Perhaps the most convincing argument in favor of making the Governor the diplomatic spokesman of the United States is that the corporate character of the Canal Zone properties renders it necessary that the one who can speak for the public corporation should also speak for the government. The Secretary of State cannot alienate rights which are guaranteed to the Panama Railroad Company by concession or by charter, nor could he speak with final authority for the proposed Panama Canal Corporation. The Secretary of War, acting through the Governor, can do so. Where the approval of the President or of Congress is required, the Secretary of War is the one who secures such consent. Hence, because of the corporate status of the Isthmian interests now forming the basis of controversy, and because it is desirable to continue this form of organization, the officer of the United States government who has both the responsibility and the power is the proper person to speak for the government.

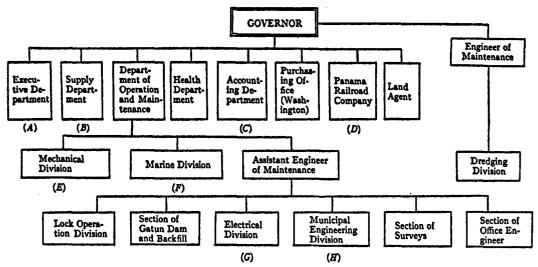
Making the Governor responsible for relations with Panama would result in straightforward, responsible dealings between the United States and the Republic of Panama. The United States' interest on the Isthmus is the Canal Zone; it is only fitting and proper that the responsible head of the Canal Zone, the Governor, should represent the United States in negotiations involving its interests. The proposed change would not only result in speedier, more direct dealings, but it would save the United States the embarrassment of not presenting a unified, consistent policy to a foreign country. Finally, direct relations would benefit the Republic of Panama and hasten the solution of outstanding difficulties.

ADMINISTRATIVE REORGANIZATION

The two recommendations which have been made, namely, the formation of a single unified corporation for the Canal Zone and the transference to the Governor of authority to carry on relations with Panama, have dealt with large issues involving form and relationship. We come now to the internal problem of organization—how best to get the work done. Here we shall be concerned with the Canal-Railroad establishment as a going concern. Our object is to suggest changes in organization and control which appear to be desirable irrespective of whether or not the Panama Railroad Company and The Panama Canal are formed into one corporation. Stated somewhat differently—what changes, if any, should be made in the present departmental organization and overhead control? The plan of reorganization which will be suggested would also appear to be a desirable one, without modification, for the proposed Panama Canal Corporation.

The changes of organization which will be suggested grow, in part, out of certain general assumptions concerning administrative organization. In the first place, the number of independent administrative units should be reduced and co-ordinated as much as possible in order that the organization may be fully integrated and readily controlled from the top. In the second place, departments should be organized on a functional basis, i.e., all of the services within a particular department should subserve the same purpose, whether it be transportation, supply, or finance. In the third place, enterprises which are distinctly commercial in their nature should be made independent of departments concerned with staff or general-supply functions. Finally, proper consideration should be given to staff services such as finance, personnel, and public relations. It is best that these principles, or general objectives, should be stated in advance, although we shall have ample opportunity to explain them further and to illustrate them by concrete suggestions. All of our theories and assumptions, it need hardly be said, must stand the test of whether or not a change seems to be desirable and whether it can be accomplished without a major operation. The present problem is more comprehensive and will therefore involve a lengthier discussion than any of the other recommendations.

The existing organization of the Canal-Railroad establishment, omitting the Washington office, is shown in Chart V, which is a reproduction of the official organization chart prepared on the Isthmus. It will be observed that, according to PRESENT ORGANIZATION OF THE PANAMA CANAL



(A) Executive Department: Relations with Panama, licenses, police and fire, libraries, education, customs, post-offices, executive office (correspondence, rectics, clubs, and playgrounds), hotels. magistrate courts.

(E) Mechanical Division: Repairs to vessels, canal and railroad, manufacturing.

(B) Supply Department: Storage and sale of materials and supplies, commissaries, cattle and dairy industries, ice, construction and repair of buildings, ords, pay-rolls, personnel, statis- care of grounds, transportation.

(F) Marine Division:

Port administration, pilotage admeasurement, aids to navigation, salvage, Board of Local Inspectors.

(C) Accounting Department: Pay, collection, auditing, claims. inspection of field accounts, costkeeping, accounting, budgeting,

(D) Panama Railroad Company: Railroad transportation. supply. coaling, receiving and forwarding shipping line.

(G) Electrical Division: Power system (generating stations, transmission lines, and substations), railway signals, telephones and electric clocks, electrical construction and maintenance.

(H) Municipal Engineering Division:

Purification and distribution of water, disposal of sewage, streetcleaning, highways, sewers,

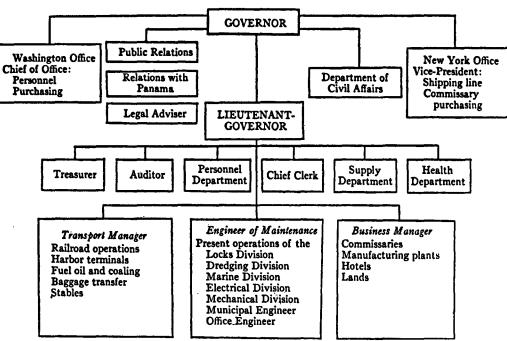
the diagram, the Engineer of Maintenance is not in an immediate supervising position over any of the units of administration, except that he is in charge of the Dredging Division. In actual practice he now has more executive authority than is indicated. It should also be observed that seventeen separate departments or divisions are shown on the diagram and that ten of them report directly to the Governor, whereas six divisions are under the Assistant Engineer of Maintenance, and the seventh, as has been said, comes under the control of the Engineer of Maintenance. The various enterprises which are owned by the Panama Railroad Company, such as hotels, commissaries, stables, etc., are not indicated in the diagram.

The changes in organization which the writer proposes can be made with great ease and, it is believed, with substantial benefit to the future operations of the Canal-Railroad establishment. Chart VI presents in detail the proposed plan of reorganization. Observe that the Lieutenant-Governor (the present office of Engineer of Maintenance) shares with the Governor the supervision and control of the entire administrative organization. His office may be compared to that of general manager; yet, for reasons which have been previously explained,⁹ the line of authority is not to be drawn too sharply between the functions of the Governor and those of the Lieutenant-Governor. Omitting the New York and Washington offices, as we did above, we find that there are ten administrative heads who would report directly to the Governor and to the Lieutenant-Governor, a reduction of one. The persons in charge of public relations, relations with Panama, and legal advice, would, it is suggested, attach themselves to the Governor's office and for that reason are not numbered with the independent departments.

Under the proposed organization there would be only three administrative heads of commercial units who would report directly to the chief executive. This would result in a very real simplification and in more effective executive control. The

9 See supra, pp. 49-51.

CHART VI



PROPOSED ORGANIZATION OF PANAMA CANAL CORPORATION

business coming under the control of the Engineer of Maintenance (a separate office from that of Lieutenant-Governor) would be concerned with Canal operations and engineering functions. It is the present Department of Operation and Maintenance with the Dredging Division, the Mechanical Division, and the Marine Division added to it. This grouping appears to be logical and workable. The Engineer of Maintenance would divide the responsibility with his lieutenant, an Assistant Engineer of Maintenance, in the manner which seemed best-perhaps by giving the Assistant Engineer of Maintenance the responsibilities which he has at present. In the chart the Section of Surveys and the Section of Gatun Dam and Backfill are not shown, but it is intended that they should remain within the general supervision of the present department of operation and maintenance. It may be possible to effect certain administrative consolidations within the engineering branches, but others are more competent to judge of this than the writer.

The services coming within the supervision of the Transport Manager would involve no changes in the existing organization, because this is the position which at present is entitled General Manager of the Panama Railroad Company. The existing title is a misnomer. The Transport Manager, under the present institutional organization or under the Panama Canal Corporation, would be responsible for railroad operations, steamship interests on the Isthmus, harbor terminals, coaling plants, baggage transfer, and stables.

The third operating unit of a commercial nature would be headed by a Business Manager. He would have charge of the commercial services, as distinguished from the canal operation and engineering department and the transportation enterprises mentioned above. The Business Manager would be skilled in business administration, which deserves to be considered a specialty just as much as does engineering or railroading. Within his department would come the commissaries, the manufacturing plants, the hotels, and the lands. This recommendation involves, on the operating side, the only substantial regrouping of services.

The commercial enterprises of an operating nature, which are included within the Supply Department at present, would be separated from the remaining services. From the standpoint of administrative principle and general experience, this divorcement is to be recommended because two diverse functions are joined at present. These functions are operating or sales services, which fulfil a commercial function, and general supply, which may be considered a staff function inasmuch as it includes storehousing, repairs, etc., which are required by the administrative establishments generally.

Operating services which do a retail business, and which are to be judged strictly on a profit-and-loss basis, should stand on their own administrative footing, according to the best authorities on public administration.¹⁰ Moreover, there has been a tendency for the business services to become an autonomous unit within the Supply Department, pointing to the natural desirability of the change, which, it is suggested, should be officially recognized. The Commissary Division, for example, is located across the Isthmus from the Supply Department; it should be free from remote supervision. As has already been said, the commercial services need to be free and independent if they are to have elasticity of management and if they are to give due emphasis to public relations.

Army officials frequently express an aversion to high-pressure business methods—an aversion which the writer shares. It is not proposed to produce the flashy type of business person or high-powered salesmanship. It is merely argued that special training and special ability are essential in the business services, just as they are in other Canal Zone enterprises. Greater attention to the business undertakings need not produce overemphasis—indeed, it should not be permitted to do so. If the Canal Zone is to operate department stores, hotels, and other

^{**} The best analysis of this problem is found in W. F. Willoughby, Principles of Public Administration (Baltimore, 1927), chap. xi.

business enterprises, however, it should do the job as well as possible. This seems to suggest that the organization and the methods employed with success in the business world should be followed, within limits, on the Isthmus.

This leaves seven departments, Health, Supply, Civil Affairs, Chief Clerk's, Personnel, Auditor's, and Treasurer's, to be dealt with. Unlike the canal operations, transportation services, and business enterprises which have just been discussed, each of these seven departments may be considered a staff or headquarters agency rather than a commercial operating unit.

The Health Department is the only one which, according to the proposed plan of reorganization, would remain exactly as it is at present. In the case of the remaining departments a separation of activities appears to be desirable, in several cases, in order to effect functional organization and in order to put greater emphasis on important aspects of general administration.

The Supply Department would remain as it is at present, except for the fact that the business enterprises would be made an autonomous unit under the direction of the Business Manager. This would leave the department with the function which its name implies-general supply of material and upkeep of public properties. The divisions remaining under the Supply Department would be the Constructing Quartermaster Division, the Storehouses Division, the Fuel Oil Division,¹¹ the Panama Canal Press, the Plant Introduction Gardens, and the Transportation Division. The last-mentioned service should be renamed the Vehicle Supply Division, because it is really a central pool of automobiles for official use and not to be confused with the Transportation Manager's department under the proposed scheme of reorganization. The Commissary Division, the Cattle Industry Division, and the Subsistence Section would be transferred to the Business Manager, as has

" This agency merely handles the pumping of oil into ships but does not sell it.

been explained. The principal duties remaining to the Supply Department would be the construction, repair, furnishing, and general upkeep of all Canal Zone residences and buildings; the care of all grounds both public and residence; the storage, issue, and handling of all materials and supplies except commissary purchases; the supply of vehicles for official use; operation of the Panama Canal Press; and the maintenance of the Canal Zone Experimental Gardens.

The present Executive Department would be reorganized on a functional basis. At present it is three departments rolled into one, namely, civil affairs, chief clerk's, and personnel. The Department of Civil Affairs would be made an independent establishment and would stand in a close relationship to the Governor, as shown on the organization chart. Its duties would be strictly functional, namely, police and fire administration, libraries, clubs and playgrounds, education, customs, postoffices, magistrates courts, and issuance of licenses. It would be the department of municipal government, as it were, headed by the city manager.

The work of the present Executive Department which really deserves that title would be placed under the Chief Clerk's Department. This is the usual organization and designation in large corporations. The basis for the complete separation of the Department of Civil Affairs and the Chief Clerk's department has already been laid, as will be seen by glancing at the organization chart of the present Executive Department.¹³

The Chief Clerk would be in charge of correspondence, records, pay-rolls, and statistics—these being his present duties, with the omission of the Personnel Bureau and the Clubs and Playgrounds Division. The former would be made an independent bureau, and the latter would be transferred to the Department of Civil Affairs.

The functions relating to municipal government and those relating to the Chief Clerk's duties should be separated. The Executive Department is overgrown, and the divisions coming

²⁸ See supra, p. 160.

within it are heterogeneous. One section of its work, under the supervision of the Executive Secretary, deals with civil government; the other section, under the immediate direction of the Chief Clerk, takes care of the clerical and executive services required by all administrative establishments on the Isthmus. Then, in addition, there is the Personnel Bureau, a staff agency, which needs more emphasis and autonomy.

The arguments in support of giving greater attention and independence to the Personnel Bureau have already been canvassed.¹³ Suffice it to say here that this staff agency has been neglected and that, judging from indications, it will need to function very effectively if the future personnel needs of the Isthmian services are to be taken care of adequately. Personnel is the crux of all administration, and hence the personnel bureau should be autonomous and progressive. It is not a routine agency like the other services in the Chief Clerk's office. Moreover, one of the strongest reasons in favor of giving it an independent status is that modern industry and reorganized governments accord the personnel bureau an autonomous position, a key position, in the administrative set-up. When there are strong practical and functional reasons for doing so, it is policy to subdivide existing departments, even if it means a larger number of administrative units. This is clearly the case with the Personnel Bureau. Moreover, as we have pointed out, the total number of independent administrative establishments under the proposed reorganization is one less than under the existing organization.

The present organization of the Accounting Department would be subdivided, and, under the proposed plan, the function of the Treasurer and that of Auditor would be made separate. This recommendation is supported on grounds of principle, precedent, and the best interests of the Canal Zone administration itself. The arguments pro and con have been so fully covered in chapter vii that they will not be repeated here.

The concluding proposal incident to administrative reorgan-

¹³ See supra, pp. 159-62, 170, 174, 189-90.

ization relates to the introduction into the Governor's office of trained persons who would furnish legal counsel and deal with public relations and relations with Panama. Inasmuch as relations with Panama have already been discussed we may consider this question first.

Under the present organization, "Relations with Panama" is listed as one of the functions of the Executive Department. If the Governor were given the responsibility for conducting diplomatic relations with the Republic of Panama, as has been proposed, it is obvious that he would need far more assistance than he receives at present. It has been suggested that this assistance might be obtained from the State Department in the form of persons ranking as Secretaries of Legation.¹⁴ Irrespective of whether or not the Governor is given complete responsibility for relations with Panama, however, his present obligations relative to Panamanian relations are already so great that he appears to need a specially designated assistant for this purpose. This executive assistant should be close to the Governor, and therefore he should be attached to the Governor's office. This is the usual practice in industry and government.

One of the greatest oversights of Canal Zone administration is its failure to give sufficient attention to public relations. It is only in recent years that the War Department has become conscious of the importance of public attitudes and the possibilities of improving them by education. Public relations has always been, and still is to a considerable extent, a weak point in Army administration. The difficulty may be due, in part, to failure to distinguish between cheap publicity, lobbying, and propaganda, and what may be called public education and attention to public attitudes and desires. Either in the person of the executive assistant responsible for relations with Panama, or as a separate office, there should be a permanent assistant who would study complaints and attitudes and give out news releases and stories designed to increase public knowl-

14 See supra, p. 224.

edge and appreciation of Canal Zone activities. This work should be conducted from the Governor's office. Other public organizations have found that serious attention to these matters is imperative. The Canal Zone should not consider itself the exception to the rule. Relations with Panama and knowledge of Isthmian accomplishments in the United States could be greatly improved, it is believed, if sufficient attention and intelligence were given to public relations in the best sense of the term.

There is also need for a legal adviser who would be attached to the Governor's office. At present the only lawyer employed by the Canal-Railroad establishment is the counsel on the Isthmus of the Panama Railroad Company. He serves both organizations and gives only part of his time to the work. The Panama Railroad Company also retains a General Counsel in New York. The Panama Canal should really have a fulltime legal adviser, particularly if the proposed Panama Canal Corporation is created. An entire legal department is not required. If the strictly legal duties of the office did not occupy all of the counsel's time, it would probably be possible to employ his spare time to advantage in some other connection possibly in matters pertaining to land holdings.

Public relations, relations with Panama, and legal advice may very properly be handled by executive assistants located in the Governor's office. The importance of the subjects justifies their being brought into close relation to the Governor. In many organizations, as has been said, there is precedent for this administrative practice. The actual division of responsibility among persons dealing with public relations, relations with Panama, and legal advice is a matter that must be worked out in the light of local conditions and available personnel.

No reference has been made so far to the administrative relations which should exist between the Governor and the heads of the New York and Washington offices. In the first place, as has been suggested,¹⁵ it appears necessary to retain both offices.

¹⁵ See supra, pp. 121-22.

Because of the specialized character of commissary purchasing it seems desirable to retain two purchasing organizations rather than to consolidate them. Moreover, the purchasing officers in both New York and Washington have man-sized jobs as it is.

In case the Panama Canal Corporation is formed, and a unified organization is brought into existence, it would appear wise to have it clearly recognized that the Vice-President in charge of the New York office is completely responsible to the Governor, the head of the entire organization. This would include the power to appoint and remove him, and freedom to supervise his policies and actions in any way. However, it would still be desirable that, in practice, the Vice-President should have a great deal of freedom over the operation of the steamship line and the commissary purchasing. In case no change is made in the present dual organization, it is probably best to let matters remain as they are.

The relationship to the Governor of the Washington office, and the powers of its head, should probably remain substantially as they are, irrespective of whether both organizations are continued or whether the Panama Canal Corporation is formed. The Board of Directors, under the proposed incorporation, would probably hold its annual meeting in Washington.

SUMMARY

The Panama Canal and the Panama Railroad Company are well managed, and both present a record of government enterprise which is unexcelled in the national government of the United States. However, it is impossible to hold up the Panama Railroad Company as a model for other government-owned corporations, because its identity, its finance, and its operation have been so closely associated with a parallel organization, The Panama Canal. Nevertheless, it has clearly appeared that the corporate form of organization has many advantages over ordinary governmental organization, and the complete benefits of the public corporation would be fully released if consolidation of the Panama Railroad Company and The Panama Canal were put through. The principal benefit of the survey has been to obtain extremely interesting and significant data relative to the public administration of business undertakings.

Although the Isthmian enterprises are so honestly and capably managed, there are important respects in which, it is thought, their efficiency can be further improved. Therefore, the writer has recommended the following constructive changes in administrative organization and method:

1. The formation of a comprehensive public corporation to be called the Panama Canal Corporation, this organization to take over and consolidate the Panama Railroad Company and The Panama Canal.

2. The transference to the Governor of responsibility for relations with Panama, and the discontinuance of the present overlapping and ineffectual system whereby a Minister is sent to Panama.

3. Reorganization of the internal organization of the Canal-Railroad establishment, wherein the operating services would be consolidated under three executive heads, dealing respectively with canal operation and maintenance, transportation services, and business enterprises; the creation, as separate departments, of a department of Civil Affairs, a Chief Clerk's office, and a Personnel Bureau; the division of the financial organization into a Treasurer's and an Auditor's department;¹⁶ and the development of instrumentalities within the Governor's office for dealing with public relations, relations with Panama, and legal advice.

Given the desire, the freedom, the organization, the personnel, the methods, and the business, government-operated services can be made as efficient as any. The Isthmian enterprises have already proved their mettle. The public corporation appears best designed for the purpose of conducting business services which are owned by the government. With intelligent and sympathetic treatment by Congress, the next phase of Isthmian administration should be even brighter than the first.

¹⁶ For an alternative proposal see p. 132, n. 1.

INDEX

INDEX

Abattoir, 113, 124 Accounting Department, The Panama Canal, 131-55 cost of maintaining, 136 functions of, 132-40 organization chart of, 137 proposed reorganization of, 234 Administration, overhead control of, 51-54 Administrative reorganization, proposed, 225-37 Air service, competition with railroad line, 70~71 Army, United States: comissary sales to, 106-7 payment to Panama Railroad Company for services, 62 rates given to, on steamship line, 87 relations with Isthmian administration, 17-18, 42-43 size of, on the Isthmus. 7 Asia, trade with, 215-16 Aspinwall, William H., 26 Auditor, Panama Railroad Company: duties of, 134-35 role of, 131, 132-34, 138 Baggage transfer service, 75-76 Bakery, 123 Bureau of Statistics, The Panama Canal, 174 Burgess, E. W., Governor, 29 Business Manager, Panama Canal Corporation, proposed office of. 230-31 Business services on the Isthmus: conclusions relative to operation of, 128-30 operation of, 98-130 Canal Zone: administrative problems in, 10-21 civil government of, 47-48 community life in, 6-10 community pride in, 6 co-ordinate jurisdictions in, 17-19 employment in, 7-8

general appraisal of services in, 212-17 government of, 14-10 health conditions of, 5–6, 9–10 ingrowing bureaucracy in, 8, 164-68, 190 legal status of, 14–17 limitations on American jurisdiction over, 16 population of, 6–7 public relations in, 127, 129, 235-36 question of American sovereignty over, 15 raison d'être of services of, 5-6 recreation facilities in, 9-10 relations with Panama, 11-14 Retirement Act, 177 "socialism" of, 6, 10 urban centers of, 8-9 water supply of, 23 Canal Zone Retirement Act, 177 Canal Zone Women's League, 181 Cases cited: Sloan Shipyards Corporation v. U.S. Shipping Board, 258 U.S. 549 (1922), 209 n. Panama Railroad Company v. Curran, 256 Fed. 768 (1919), 209 n. Cattle industry, 30, 124, 125 Chauncey, Henry, 26 Chief of Office, Washington, 44 Civil Service: Canal Zone, 162-64 business services and, 164 commissary personnel and, 115-18 in government-owned corporations generally, 201-3 shortcomings of, when applied to public commercial undertakings, 116 Classification Committee, The Panama Canal, 174 Coaling plants, 74-75 Collector's Office, The Panama Canal, 136-37, 139-40, 141 Colombia, Republic of: concession obtained from, 26-27 Panama Railroad contract of 1867

with, 12, 17

Colombian Line, 91, 93, 94 Commissaries, 103-22, 128-30 accountant for, 139 accounting methods of, 113-14 advantages enjoyed over States' merchants, 111-12 capital accounts of obsolete units of, 113 capital investment in, 109, 113 causes of congestion at, 114-15 Civil Service and, 115-16 clerks in, 115 criticisms of management of, 110–15 differences between, and ordinary business enterprises, 100 early history, 29–30 finances of, 107-0 General Manager of, 104-5, 115-16 growth of, 13–14, 105–6 lack of competition with, 100 management of, 103-18 operating expenses of, 107-18, 112-13 prices at, 111-14 profits and profit policy of, 108-9 purchasing operations of, 118-22 sale of "luxuries" in, 106, 112 sales to United States Army, 106, 107 use of scrip at, 115 Commissary Division, The Panama Canal. See Commissaries; also Productive units; Panama Railroad Company Complaints Board, The Panama Canal, 182-83 Courts, Canal Zone, 17, 159, 160 Dairy farm, 30, 125 Davis, Dwight F., Secretary of War, 95 Davis, General, Governor, 15 Defense, the canal and, 4-6 De Lesseps, Ferdinand, 27 Depreciation policies, 151 Dimock, Marshall E., 32 n., 196 n., 198 n., 214 n. Docks and piers, value and importance of, 71-72 Economy Act of 1933, provisions applicable to Panama Railroad

- plicable to Panama Railroad Company, 174
- Electric signals, railway, 69

Employees, "gold": efficiency ratings of, 168-72 number of, 7 problem of, 7–8 promotion of, 168–72 ratio of, to "silver" employees, 116-18 recruitment of, 164-68 remuneration of, 172-74 retirement of, 177 Employees, "silver": in the commissaries, 115-18 number of, 7 number in skilled positions, 184-85 proposal to replace, 183-89 remuneration of, 174 n., 175 Engineer of Maintenance, 19, 50-51, 228, 229, 230 Engineering, Isthmian, 4, 48 Europe, trade with, 216 Executive Department, The Panama Canal: organization and functions of, 150-60 organization chart of, 160 proposed reorganization of, 233-34 Finances: commissary, 107-9 Panama Canal, 30–31 Panama Railroad Company, 30 Financial administration, 131-55 Bureau of Efficiency's recommendations regarding, 147-48 capital improvements charged to operating expenses, 150-51 depreciation policy, 151 in government-owned corporations generally, 203-7 organization and control of, 132-46 policies and practices of, 146-55 proposed Panama Canal Corporation and, 218-20 proposed reorganization of. 140-46 reserves, 35, 150, 152-53 strict versus liberal accounting, 153-55 French canal company, 25, 27 General Manager, Canal-Railroad,

- proposal to establish considered, 49-51
- General Manager, Panama Railroad Company, 52–53, 65, 82, 230
- Goethals, General George W., Governor, 15, 18, 19, 29

Government-owned corporations: accountability and public control of, 207-10 administrative relationship to the government, 198-200 advantages of national incorporation, 192-94 American and British corporations compared, 198-99 Board of Directors of, 195, 196-98 Civil Service and industrial service, 201-3 elasticity of management, 195 financial considerations involved. 203-7 freedom from governmental interference, 194-96 liability of, 208-10 methods of incorporation, 192-93 Panama Railroad Company as an example of, 16-17, 19-20, 27-29, 31, 32-45, 51-54, 162-64, 237 partisan influence eliminated, 197 powers of general manager, 200-201 principles underlying, 101-211 problems of incorporation, 192-94 proposal to incorporate Panama Canal, 217-22 purchasing methods of, 207 recent ones created, 191-92 relations with Congress, 35-37, 196 scope of powers, 194 summary of principles applicable to, 210-11 Governor, The Panama Canal: as administrator, 48–50 control over expenditures, 149-50 creation of office of, 4-5 functions of, 45-48 future of office, 48-51 proposal to make responsible for relations with Panama, 224-25 relation to Engineer of Maintenance, 19, 49-51, 228, 229 relations with Panama, 11, 235 Grace Line, 91, 93 Haitian trade, the question of, 38, 80, 81, 91, 93-94 Harbor terminal operations: docks and piers for, 71-72 financial results of, 73 scope of, 72-73 receiving and forwarding, 71

Hay-Bunau-Varilla Treaty, provisions of, 11-12, 14, 15, 16-17 Highway, proposed trans-Isthmian: contract preventing, 12-13 prospects for, 56, 70 Hotels, Isthmian: early history of, 29-30 finances of, 126-27 management of, 127-28 operation of, 126-28

- Ice plant, overcapitalization of, 113
- Industrial laboratory, 123-24

Isthmian Canal Commission: abolition of, 18 defects of, 18 reorganization of, 18

Jones-White Act, 90, 91

ownership of, 23

- Labor unions, Canal Zone, 157, 179-83
- Las Cruces Trail, early travel over, 25
- Latin America, trade with, 3
- Laundry, 125
- Legal adviser, The Panama Canal, proposed position of, 236
- Lieutenant-Governor: proposed office of, 227, 228 proposed title of, 51
- Mail contracts, ocean, 90, 91
- Manufacturing plants. See Production units; Panama Railroad Company
- Mechanical Division, The Panama Canal, accountant in, 139

Metal Trades Council: functions of, 280-81 objective of, 281-82 origin of, 158, 180 rôle of, 280-82 strength and importance of, 158,

- 179, 180 on white versus alien labor, 184
- Miller, Hugh Gordon, 15

Morrison, Herbert, 105 n.

- Morrow, Jay J., Governor, 5 on financial reorganization, 140-41 on the functions of the Auditor, 133-34
- Motor highway. See Highway, proposed trans-Isthmian
- Navy, United States, 4–5 rates given to, on steamship line, 87 size of, on the Isthmus, 4

Pacific Mail Steamship Company, former monopoly of, 3 Panama Canal: accounting in Mechanical Division, 139 administrative relationship to Panama Railroad, 23, 28-29, 52-54 appropriations for, 34-35, 148-49 capitalization of, 30-31 chart of Accounting Department, 137 chart of Executive Department, 160 chart of overhead control of, 53 chart of present functions, 227 chart of suggested reorganization, 220 civil government of, 47 Classification Committee, 173-74 classification of employees, 173-74 collector's office, 136, 138, 139-40, **141** Commissary Division. See Commissaries; also Productive units; Panama Railroad Company comparison with railroad corporation, 31 Complaints Board, 182 conclusions regarding personnel management, 189-90 construction period, 28 control over personnel matters, 158-62 controversy over alien labor, 183–89 cost of maintaining Accounting Department, 136 cost of operation, 214-15 date several enterprises were begun, 24 depreciation policy, 151 discipline and removals in, 178-79 economic value of, 1-3, 215-16 efficiency ratings in, 168–72 Electrical Division, 23 Engineer of Maintenance of, 19, 50-51 establishment of capitalization of, 147-48 Executive Office of, 159 Executive Secretary of, 150 finances of, 30-31 financial administration, 131-35 financial control of, 34-37 financial policies and practices, 146-55 Fuel Oil Division, 23 functions of Accounting Department, 132-40 functions of Executive Office of, 160

general conclusion concerning efficiency, 212-17 Governor's office, 4, 11, 45-51, 149, 224–25 labor unions, 179–83 importance of, 22 influence upon intercoastal trade. 2-3 Mechanical Division, 22 Metal Trades Council, 158 office of Assistant Auditor, Washington, 135 office of Auditor, 131, 132-34, 136, 138 paymaster's office, 136, 138, 139-40, 141 Personnel Bureau, 158-62, 170, 183 personnel management, 156-90 personnel work of Bureau of Statistics, 175 press of, the, 30 profit policy of, 151 promotion boards suggested, 171 promotion policy in, 168-72 proposal to incorporate, 217-22 proposal to make Governor responsible for relations with Panama, 224-25 proposed administrative reorganization of, 225–38 proposed office of Lieutenant-Governor, 51, 227, 228 proposed office of Treasurer, 141-43, 144 proposed position of legal adviser, 236 proposed public relations bureau, 235-36 proposed reorganization of Accounting Department, 234 proposed reorganization of Executive Department, 233-34 proposed reorganization of financial administration, 140-46 proposed reorganization of Personnel Bureau, 234 proposed reorganization of Supply Department, 232-33 purchasing operations, Washington. 121-22 recruitment of employees, 164-68 relation to Congress, 32–34 relationships and control of, 32-54 remuneration policies, 172-77 Salary Board, 172 scope of Civil Service regulations, 162-64 Silver Wage Board, 172, 175

Panama Canal:-Continued Staff Assistant in Secretary of War's office, 43 summary of conclusions and recommendations, 237-38 Supply Department of, 98, 100-102 Wage Board, 172, 173 Washington office of, 43-45 Panama Canal Act, 18, 45, 162, 172 Panama Canal Corporation: arguments against establishing, 218 arguments in favor of establishing, 217-22 chart of suggested organization, 229 financial administration under, 218-20 proposed office of Business Manager, 230 proposed office of Transport Manager, 230 proposed office of Vice-President, 237 purchasing procedure under, 220-21 relations with Congress, 219-20 unified administration possible under, 222 Panama Canal Corporation, proposed, 217-25, 237 Panama Canal-Panama Railroad establishment: nature of, 32 departments of, 32 Panama Canal press, 30 Panama Line. See Panama Railroad Steamship Line Panama Railroad Company: as an adjunct of the Canal, 39-42 administrative relation of Panama Canal to, 23, 28-29, 52-54 Auditor of, 134-35 baggage transfer service of. 75 Board of Directors of, 37-39 business services of, 98-130 capitalization of, 27-28 chart of overhead control of, 53 chart of present functions, 227 chart of suggested reorganization, 220 charter of, 16-17, 26 Civil Service in, 162-64 commissaries of. See Commissaries comparison with Panama Canal organization, 31 Congressional acts relating to, 33-34 contract of 1867, 12, 17

dates several enterprises were begun, 24 discounts on, 97 dividend history of, 151-52 dividends of, 27-28 docks and piers, 71-72 Economy Act of 1933 applicable to, 174 exemption from taxation by Panama, 17 finances of, 30 financial administration, 131-55 financial control of, 34-37 financial policy, 153-55 general conclusions concerning efficiency, 212–17 General Manager of, 52–53, 82 government ownership and operation of, 27-29 Haitian trade of, 38, 80, 81, 91, 93harbor terminal operations, 71-74 headquarters of, 38 history of, 25-27 incorporation of, 1-2 land agent of, 98 New York office of, 81-82, 83 personnel management, 156–90 production units of, 122-25 profit policy of, 151-52 proposed administrative reorganization of, 225-38 railroad line proper, 55-75. See also. Railroad line real estate of, 13 receiving and forwarding, 71 relation to Congress, 32-34, 35-37 relationships and control of, 32-54 replacement reserves, 153 reserve fund of, 35 Secretary of War's relation to, 38, 42-43 securities of and policies concerning, 152-53 stables of, 30, 76 steamship line of, 78-97. See also Panama Railroad Steamship Line summary of conclusions and recommendations, 237-38 Treasurer of, 134 Vice-President of, 51-52, 54, 81-84, 221-22 Panama Railroad Company v. Curran, 256 Fed. 768 (1919), 209 Panama Railroad Steamship Line, 78-07 acquisition of, by the United States

government, 28

Panama Railroad Steamship Line:-Continued attacks upon 89-92 commissaries of. See Commissaries competition of, 89-92 construction of new ships, 97 deficits in recent years, reasons for, 84-85 discounts on, 85–87 early importance of, 28, 78 extension of service of, to South America, 96, 97 financial results of, 84-87 future policy of, 78–79 Haitian trade of, 38, 80, 81, 91, 93-94 organization and management of, 81-84 proposed method of eradicating deficits of, 87-89 Purchasing Department of, 118-22 rate policies of, 84-87 rates on, 86, 87 reasons for continuance of, 95-97 restriction of service of, 92-95 scope of operations of, 79-81 tonnage statistics of, 80-81 Panama, Republic of: alien problem, 7 attitude of merchants of, 6, 13-14 population of, 6–7 relations with, 11-14, 188, 222-25, 235 relations with people of, 8 treaty with the United States, 11-12, 14, 15, 16-17 urban centers of, 8 Panama Revolution, 5 Paymaster's Office, The Panama Canal, 136, 138, 139–40, 141 Personnel Bureau, The Panama Canal: additional duties proposed, 183 functions of, 158-62 proposed reorganization of, 234 recommendations relative to personnel management, 189–90 techniques of, 161 Personnel management, 156-90 "canal-diggers," 156 Civil Service regulations and, 162-04 classification, 173-74 commissary, 115-18 conclusions regarding, 189-90 control over, 158-62 discipline and removals, 178-79

efficiency ratings, 168-72 employment of university graduates, 203 in government-owned corporations generally, 201-3 ingrowing bureaucracy, 8, 164-68, 189, 190 problem of alien labor, 183-80 Probst rating system, 169 promotion policy, 168–72 recommendation concerning organization, 189–90 recruitment of employees, 164–68 remuneration policies, 172-77 replacement of "silver" employees with "gold," 117–18 retirement provisions, 177 suggested promotion boards, 171 vacations, 176-77 Plantations, 125 Probst rating system, 169 Production units, Panama Railroad Company, 122-25 abattoir, 113, 124 bakery, 123 cattle industry, 30, 124, 125 dairy farm, 30, 125 ice plant, 113 industrial laboratory, 123–24 laundry, 125 plantations, 125 reasons for existence of, 122-23 value of output of, 123-24 Public administration: Army engineers as administrators, 48-40 general problems of, in the Canal Zone, 19-21 Public corporations. See Governmentowned corporations Public relations: commissaries and, 129–30 hotels and, 127 importance of, 127 proposed bureau of, 234-36 Purchasing operations: commissaries, 118-22 in government-owned corporations generally, 207 proposed Panama Canal Corporation and, 218, 220-21 Washington office, 121–22

Quartermaster, Assistant Chief: duties of, 102 as supervisor of hotels, 126

Quartermaster, Chief, duties of, 101, 102, 104, 105 Railroad line, 55-77 accommodations of, 70 air competition with, 70-71 capital account of, 67 capital investment of, 55-56, 68 coaling plants of, 74–75 discounts on, 61 early importance of, 25-27 economics of, 55-59 electric signal system of, 69 electrification of, considered, 69-70 finances of, 64-65 General Manager of, 65 general observations concerning management, 76-77 granting of passes, 61, 63 harbor terminal operations of, 71-74 history of, 25-27 management of, 65-69 monopoly of, 12-13 operating ratio of, 68-69 possible competition with, 60-71 possible motor highway competition with, 56, 70 rate policies of, 59-65 rolling stock of, 66-67 route of, 57 trans-shipping business of, 57 uses of, 58-59 Rates, hotel, 126, 127 Rates. railway: comparisons with those of other railroads, 59-61 differentials in, 60-64 Rates, steamship, 86-87 Real estate, Panama Railroad Company, 13 Recreation facilities, in the Canal Zone, g-10 Repatriation, problem of, 187-89 Roosevelt, Theodore, 5 Royal Dutch Line, 93, 94 Salary Board, The Panama Canal, 172 Sharfman, I. L., cited, 63 Shipping routes, Caribbean, 3 Silver Wage Board, The Panama Canal, 172, 175 Sloan Shipyards Company v. U.S. Shipping Board, 258 U.S 549 (1922) cited, 209 B. South America, trade with, 2-3

Special Panama Canal Commission: recommendation concerning the Accounting Department, 132, 133 recommendation concerning Canal capitalization, 147 recommendation concerning commissary profit policy, 108 recommendation concerning a "General Manager," 45, 49–50 recommendation concerning remuneration scales for employees, 175 recommendation concerning replacement of white employees with black, 117, 184 recommendation concerning separate accounting offices, 135 Stables, 30, 76 Stephens, John L., 26 Suez Canal: comparison to Panama Canal, 214-**15** organization of, 31 Supply Department, The Panama Canal: Commissary Division subordinated to, 115 control of commercial services, 98, 100-102 functions of, 100-102 organization of, 101-2 proposed reorganization of, 232-33 units of, 102 Taft, W. H., Secretary of War, 18, 28, 79 Telephones, 23 Tourist travel, on the railroad line, 58 Trade, American, through Panama Canal: with Asia, 215-16 with Europe, 215-16 intercoastal, 2-3 with Latin America. 3 with South America, 2-3 Transport Manager, proposed office of, 229, 230 United Fruit Company, 87, 91 University-trained men, need of, 167, 203 Vacations, necessity of, 176-77 Van Dorn, Harold A, cited, 192 n., 193, 195

Vice-President, Panama Railroad Company: duties of, 51-52, 54 rôle of, 221-22

Wage Board, The Panama Canal, 172, 173 War, Secretary of: as a director of the Panama Railroad Company, 38, 42-43 responsibilities of, 42-43

Staff Assistant to. 43

Washington office, The Panama Canal: functions of, 43-45

purchasing operations of, 43, 121-22

Weeks Commission See Special Pananama Canal Commission

Welch Classification Act. 116

West Indians, relations with, 8. See also Employees, "silver"

White, Leonard D., 183 n.

Willoughby, W. F., 210, 231 n.

Wilson, Sir Arnold T., 215, 216 n.

