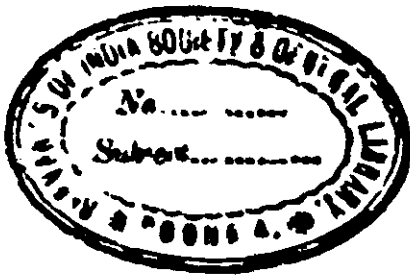


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CLEARINGS AND COLLECTIONS;
FOREIGN AND DOMESTIC

BY

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SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY
IN THE
FACULTY OF POLITICAL SCIENCE
COLUMBIA UNIVERSITY

. 347 in the "Studies in History, Economics and
Public Law" of Columbia University.

NEW YORK

1931

X621:5.50j7

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COLUMBIA UNIVERSITY PRESS

PRINTED IN THE UNITED STATES OF AMERICA

To
MY WIFE
GLENETTE CLARK JONES



PREFACE

THE purpose of this book is to present a description of the clearing and collection mechanism employed in England, Germany, Canada, and the United States, and to describe the clearing functions performed by central banks.

The clearing principle is followed in all countries, but its specific application shows considerable variation. Although methods of clearing and collecting credit instruments have been in use for a long time, the procedure varies and the full significance of accruing advantages are not fully realized.

The use of giro-transfers and postal checks necessitated special consideration of the clearing and collection procedure in Germany. England, with her clearings centralized in London, also presents a situation quite different from that of Canada and the United States with their wide expanse of sparsely settled territory. Again, the banking system of Canada with its few chartered banks and many branches necessitates a clearing mechanism different in many respects from that of the United States where there are approximately twenty-three thousand independent institutions.

Inasmuch as central banks are the logical depositories of banking reserves, their part in the clearing process is of considerable importance. Throughout the book there has been an effort to connect the clearing mechanism with banking reserves.

No attempt has been made to describe the clearing and collection difficulties in the United States prior to the establishment of the Federal Reserve System, a description of existing methods being regarded as adequate.

This book is part of a more comprehensive study by the author, entitled *Clearing Mechanism and Banking Concentration*, which considers the trend toward banking concentration in the United States, following similar movements in other countries, and the effect on clearing procedure.

The author acknowledges his indebtedness to several persons for their constructive suggestions. He takes this opportunity to express his appreciation for the kindly cooperation of Julius Brandenburg and Michael L. Bregman, members of the New York Stock Exchange firm of Brandenburg & Co., with whom he was associated during the preparation of this study.

THATCHER C. JONES

NEW YORK CITY, MAY, 1931.

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CHAPTER I

INTRODUCTION

THE inconvenience of barter led primitive man to the use of an intermediary commodity for exchange purposes. This commodity—money—facilitated exchanges. Demand for it increased with the development of trade intercourse. Owing to its durability, portability, homogeneity, divisibility, coznizability, and the stability of its value gold generally supplanted the multifarious objects formerly used as money until today it is a widely used standard. Man found in ordinary times that the right to receive gold was as acceptable as gold itself and that in many instances was much more convenient. Thus, the use of credit and credit instruments was developed, which render their greatest service in a money economy. Evidences of credit have increased in popularity until nowadays their volume is prodigious.

Credit instruments may be divided into credit of general acceptability and of limited acceptability. The former includes bank notes, silver certificates, and the like, while in the latter are found the check, draft, and promissory note. These instruments, owing partly to their negotiability, are the media by which most business transactions are settled. Title to a negotiable instrument may be transferred by one person to another by delivery or indorsement and the innocent transferee in due course of business takes it free from defenses available to the original and prior parties among themselves and may sue upon it in his own name. The instrument implies consideration, which places the burden on the maker to prove lack of consideration. The implication

of consideration and the negotiability of credit instruments facilitate their exchange because of their peculiar fitness in settling commercial transactions. Negotiable instrument laws exist in all the leading commercial countries. Foremost among such instruments is the check.

It is difficult to overestimate the importance of the check. For example, the clearings of the New York Clearing House Association exceeded \$5,750,000,000 in the year ended September 30, 1854, the first year of operation, an amount, over seventy-six years ago, more than one and one-half billion dollars in excess of the present monetary gold in the United States. The importance of the check will be understood when it is realized that the total production of gold in the world since the discovery of America to 1929 was slightly in excess of \$21,118,000,000 and that of silver of about \$18,340,000,000, as compared with \$6,141,000,000,000 clearings by the New York Clearing House Association for the first seventy-six years of operation; or nearly 291 times the entire gold production of the world during a period of four-hundred thirty-six years.¹ On June 30, 1929, the total monetary stock of the United States, including gold, silver, and paper circulation, amounted to about \$10,318,000,000, whereas clearings for 1929 amounted to \$727,737,000,000,² or more than seventy times the total monetary supply. A large part of the monetary stock was held by the government and banks and was not in actual circulation. It is evident that the check is indispensable to modern business methods.

¹ *Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1927*, pp. 792-793, June 30, 1929, p. 674; *Report of the Comptroller of the Currency (December 2, 1929)*, pp. 712-713.

² *Report of the Secretary of the Treasury, loc. cit.* (1929), pp. 653-654, 668-670; *Commercial and Financial Chronicle*, vol. cxxx (Jan. 18, 1930), p. 354.

That the check is used in the United States for the settlement of a great majority of payments is recognized by students of the subject. Dr. Kinley, in 1909, found that 50 or 60 per cent of the retail trade of the country and more than 90 per cent of the wholesale trade was settled by checks. As an average for all transactions, he believed that "a figure between 80 and 88 would be about right."¹ Using Dr. Kinley's statistics, Professor Fisher, in 1911, said, ". . . checks performed in 1896 about 86 per cent of the total exchange work, and in 1909 about 91 per cent."² Professor Mitchell says, "What we know with certainty is that the great bulk of payments in the United States is made with checks. Probably coin and paper money do not more than a tenth or at most a fifth of the 'money work.'"³

In England the use of checks is also great. Mr. Howarth, in 1897, gave the proportion that existed between the cash value received in checks, notes, and coin of one of the English clearing banks as:⁴

Cheques	87.30
Bank of England Notes	6.89
Cash	5.81
	<hr/>
	100.00

The media of exchange provided through the banks fluctuate in amount more than coin or paper money. Business conditions are reflected in the increases and decreases of de-

¹ David Kinley, *The Use of Credit Instruments for Payments in the United States*, U. S. Nat. Mon. Com. Pubs., 61st Cong., 2nd Sess., Sen. Doc. No. 399, 1910, pp. 196-201.

² Irving Fisher, *The Purchasing Power of Money* (New York, 1911), pp. 318, 491-492.

³ Wesley C. Mitchell, *Business Cycles, The Problem and Its Setting* (New York, 1927), p. 118.

⁴ William Howarth, *Our Clearing System and Clearing Houses* (London, 1897), p. 17.

posits. In normal times, with the usual rate of expansion, the supply of currency arises from deposits, bank notes, and bills of exchange, but of the three, deposit currency predominates and is also more responsive to changes in business demands.¹

According to Dr. Burgess,² the velocity or rate of turnover of bank deposits is closely related to the volume of bank deposits. Mr. Snyder states that the velocity of deposits seems to vary closely with the volume of general trade.³ In New York City the velocity was six to eight times as great as in Syracuse, the velocity in the former city ranging from 58.7 to 91.3 and for the latter from 7.0 to 15.3.⁴ For the entire country the velocity of circulation was estimated to be somewhere between 25 and 35 times a year and probably under rather than over 30.⁵ Seasonal and cyclical swings were found to be characteristic of bank deposits, but, contrary to general belief, the range of variation was smaller in New York than in Albany, Boston, and Syracuse, although somewhat larger than in San Francisco, Chicago, Rochester, and Buffalo. These short-term or seasonal swings to a large degree conceal the changes owing to business and credit conditions.⁶ Mr. Snyder, by compiling the total debits to individual accounts in 240 cities for the year 1922 and comparing the amount, 534 billion dollars, with the estimated average volume of deposits subject to check, 20.5 billion dollars, calculated the average velocity of deposits to be

¹ Mitchell, *op. cit.*, pp. 122 *et seq.*; Fisher, *op. cit.*, chaps. xi, xii.

² W. Randolph Burgess, "The Velocity of Bank Deposits," *Journal of the American Statistical Association*, vol. xviii (June, 1923), pp. 733-735.

³ Carl Snyder, "A New Index of the General Price Level from 1875," *Journal of the American Statistical Association*, vol. xix (June, 1924), p. 194.

⁴ Burgess, *op. cit.*, pp. 731, 733, 739.

⁵ *Ibid.*, p. 735.

⁶ Burgess, *op. cit.*, pp. 735-736; Mitchell, *op. cit.*, pp. 123 *et seq.*

about 26.1.¹ His findings tend to confirm the conclusions of Dr. Burgess and to show that Professor Fisher's estimate of 37 in 1896, 53 in 1909 and 95.6 times in 1918 were excessive.² The relative importance of deposit currency, however, is shown by Professor Fisher's conclusion "that the money in actual circulation was 2.46 billions of dollars and changed hands about 30 times in the year, thus effecting . . . 74 billions of exchange; the volume of deposits subject to check was 12.5 billions and changed hands about 95.6 times in the year, thus effecting . . . 1,195 billions of exchanges, the two together making a total of . . . 1,269 billions."³ Professor Mitchell believes that the velocity of bank deposits is more likely to approximate 30 than 96.⁴ Whatever the actual rate of turnover is, it seems apparent that the quantity of the circulating medium times its velocity of circulation varies directly as prices and the physical volume of trade. But the quantity is restricted when bank notes and deposits encroach upon what law and practical experience set as the minimum ratios between them and the bank reserves.⁵

The fact that only a small proportion of checks are presented for redemption—their amounts being generally merely transferred as debits and credits on the books of the banks,—gives them a remarkable power in economizing the use of money. "The demand for commodities and the economy of money are, other things being equal," says Professor

¹ Snyder, *op. cit.*, pp. 189-195. See Mitchell, *op. cit.*, pp. 124-126.

² Fisher, *op. cit.*, p. 304; Irving Fisher, "The Equation of Exchange for 1918," *American Economic Review*, vol. ix (June, 1919), p. 407.

³ Fisher, *op. cit.*, p. 407.

⁴ Mitchell, *op. cit.*, p. 125.

⁵ O. M. W. Sprague and W. Randolph Burgess, "Money and Credit and Their Effect on Business," constituting chap. x of *Recent Economic Changes in the United States, Report of the Committee on Recent Economic Changes, of the President's Conference on Unemployment* (New York, 1929), vol. ii, pp. 667-672.

Kemmerer, "proportionate to the amount of the checks multiplied by the rapidity of their respective circulations."¹ He qualifies the statement to the extent that some checks are transfers, that is, some are cashed and others are transfers between banks and between banks and clearing houses, which do not effect the exchange of commodities.

The check is a convenient instrument for the liquidation of obligations between individuals not only in the same community, but also within the entire country. It may be drawn for any amount not in excess of the drawer's deposit credit with the bank and obviates the necessity of transferring coin or its equivalent with the attendant inconvenience and danger. Owing to the facility with which the settlement of obligations can be effected the use of the check has shown an astounding increase.

The debtor orders his bank to pay on demand the face of the check to the payee or his assignee. Upon receipt of the order the drawer's deposit account is charged and the payee is either given money or his account credited, as he elects. When both the drawer and the payee are depositors of the same bank the change of ownership is easily effected, but when they are customers of different banks the method of transfer is more complex and when they reside in distant cities the change is still more involved.

With the exception of the United States, England, Canada and Australia, the use of checks has been limited. In other countries, however, other evidences of credit have supplemented specie. State and bank notes predominate in Italy and Germany; bank notes are in the ascendancy in France, Russia, Spain, and Scandinavia; state notes constitute the chief medium of exchange in Hungary; specie and bank notes compose the principal media in the Netherlands and

¹ Edwin Walter Kemmerer, *Money and Credit Instruments In Their Relation to General Prices* (New York, 1907), pp. 72-73 and chap. iii.

China; specie, primarily silver, predominate in India, although checks are used extensively in the large cities; specie and checks are used in Mexico; and checks and notes are about equal in importance in Japan.¹ In Germany and Austria the postal check system is in general use. Giro transfer, too, is of great importance in Germany, especially for small transactions, while checks among large business firms are used extensively.

During the course of daily transactions banks receive as deposits from customers, checks drawn not only on themselves, but on other local and distant banks. It becomes necessary to return the items for collection. Two general methods may be used. Checks may be directly presented by messenger or agent to the drawee bank and payment received, or the banks having claims against each other may offset their claims and the debtor bank remit the difference. Thus the obligation is discharged "*by being set off against another debt.*"² The task of collecting is simple if a few banks only are concerned, but when many banks are interested the difficulty of collection becomes indeed burdensome if direct presentation is attempted.

Instead of each bank collecting the items received which are drawn on other banks and paying checks drawn on it, the more desirable method is to offset, that is, clear the claims and either pay an adverse balance or receive the amount of a favorable balance. Although legal tender may be demanded, in actual practice debts are settled with debts, one credit obligation being cancelled by another.³ The primary

¹ Walter Earl Spahr, *The Clearing and Collection of Checks* (New York, 1926), chap. 1.

² Ralph G. Hawtrey, *The Gold Standard in Theory and Practice* (London, 1927), p. 4.

³ Joseph French Johnson, *Money and Currency in Relation to Industry, Prices, and the Rate of Interest*, rev. ed. (New York, 1905, 1st ed.), p. 41; Gustav Cassel, *The Theory of Social Economy*, translated by Joseph

object of the clearing house association is to provide facilities where clerks from the various associated banks may meet to present in properly labeled packages checks drawn on other banks, to receive checks on their banks, to compare their respective claims, and to ascertain the debit or credit balance. Arrangements are also made for the settlement of balances arising from the exchanges.

At a specified hour clerks of the associated banks assemble in a suitably equipped room to exchange claims which were previously entered on a balance sheet as a debit or credit, as the case may be, opposite the name of each bank concerned. After each clerk delivers his respective checks to each drawee bank and receives from them claims against his bank, a balance is struck to ascertain whether his bank owes to or is owed by other banks. If the balance is adverse, settlement is made in the large financial centers by paying the net balance to the clearing-house manager; if the balance is favorable by receiving payment from the manager. In this manner one settlement is made instead of settlements with each bank. In cities where central banks are situated the clearing banks carry deposits with them to settle clearing balances.¹

McCabe, 2 vols. (London, 1923), vol. ii, pp. 380-385. But see *Farmers and Merchants Bank of Monroe, N. C. et al. v. Federal Reserve Bank of Richmond*, 262 U. S. 649 (1923), in which the Supreme Court of the United States ruled that when a state statute permits the drawee bank to remit in exchange draft the collecting bank may not object.

¹ W. Stanley Jevons, *Money and the Mechanism of Exchange* (New York, 1897), pp. 246-252; Louis Cablot, *La Sécurité et L'Économie des Paiements en France, Spécialement Dans le Commerce de Banque* (Paris, 1913), pp. 193-196; Spahr, *op. cit.*, pp. 67-69; William A. Scott, *Money and Banking*, 6th ed. (New York, 1926), pp. 37-38; Charles F. Dumber, *Chapters of the Theory and History of Banking* (New York, 1892), chap. iv. No attempt is made to describe in detail the *modus operandi*. See Spahr, *op. cit.*, chaps. x and xi; Ray B. Westerfield, *Banking Principles and Practice*, rev. prtg. (New York, 1928), pt. iii, chaps. xxvi, xxvii. *Infra*, chap. vi.

Clearing, that is, the offsetting of claims which leaves a small net balance to be paid, is distinguished from the collection of checks which consists in their presentment at the drawee banks and arrangements made to remit therefor. The delivery of checks at the clearing house and the offsetting constitute clearing, but not until the checks are actually presented to the drawee banks, charged against the accounts of the makers, cancelled, and the settlement made with the presenting bank is the collection process complete. Thus, it is obvious that the collection of checks is necessary regardless of clearing, but it is equally clear that the clearing mechanism eliminates the waste of time and money and thereby increases the efficiency of credit. Just as the use of money as a medium of exchange was a decided improvement on the barter system, and as the introduction of credit further facilitated exchange, the means of clearing and collecting credit instruments have lubricated the credit mechanism.

Although the clearing principle remains the same its application shows considerable variation in the leading commercial countries. As illustrations of its applications the procedure in England, Germany, Canada and the United States will be described. Inasmuch as England was the first country to develop the clearing system on an extensive scale, study of its system provides a comparative background. The position of central banks in the clearing mechanism will also receive consideration.

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CHAPTER II

CLEARINGS AND COLLECTIONS IN ENGLAND

LONDON BANKERS' CLEARING HOUSE

THE widespread use of checks in England developed simultaneously with improved methods of collection and remittance. As a substitute for specie and bank notes the check became effective only with a suitable mechanism for an early presentation for payment and an economical and expeditious remittance. For these purposes the London Bankers' Clearing House was established.

The clearing system as it exists in England today, like most other economic devices, is not the product of a single age but is the result of evolutionary development. Although the inauguration of clearing by London bank clerks in 1773 is regarded as the first endeavor to clear the claims of their respective banks, yet as early as 1752 the Bank of Scotland, the Royal Bank of Scotland, and the British Linen Company established a clearing house for their notes in order to expedite redemption and thus increase their soundness. Even at a still earlier date, 1728-1730, a clearing exchange was begun as a result of the great conflict among the Scottish banks relative to the currency of their notes.¹

The Bankers' Clearing House, originally owned and operated exclusively by private bankers who refused until June 8, 1854² to admit the Bank of England and the London and

¹ William Graham, *The One Pound Note in the History of Banking in Great Britain*, 2nd ed. (Edinburgh, 1911), pp. 59 and *passim*.

² Ellis T. Powell, *The Evolution of the Money Market (1385-1915)*, (London, 1915), footnote, p. 306.

Westminster Bank (a joint-stock bank), was probably the outgrowth of the custom established in 1773 of the Walk Clerks (bank messengers) who met after lunch each day at the Five Bells, a public house in Dove Court, Lombard Street, and, probably "on the top of a post," exchanged their checks and settled the balances with Bank of England Notes and cash.¹ Not until 1895, when only four of the private banks remained, was the Bankers' Clearing House acquired by a company organized by several bankers² and the shares distributed among all of them as member banks.³ The member banks enjoy not only additional facilities, but also the preference of their paper in the bill market. The great argument, however, in favor of the clearing house is the increased use of check currency.

The early rendezvous, for which a "quarterly charge for use of clearing room—19 s 6 d" was made in 1773, as recorded in the books of Martin's Bank, soon proved inadequate and a more commodious room was rented from Mrs. Irving who owned the building adjoining the Five Bells Tavern. In 1777 there were thirty-three private bankers in

¹ Robert Martin Holland, "The London Bankers' Clearing House," *The English Banking System*, U. S. Nat. Mon. Com., 61st Cong., 2nd Sess., Sen. Doc. No. 492, 1910, pp. 267-291.

Some believe that the system was originally operated through a goldsmith in the middle of the seventeenth century and gradually "evolved into a street-corner transaction between clerks who met for that purpose." Powell, *op. cit.*, footnotes, pp. 305-308.

² In 1849 there were 25 private banks in the Clearing House, but with the admission of six joint stock banks in 1854 the number was increased to 31. Due to bank mergers and amalgamations the number of banks in the clearing was reduced in 1921 to 10—besides the Bank of England which clears on one side only. (See page 34). The banking offices represented in the Town Clearing, however, increased to 93. Matthews, *op. cit.*, p. 25; Minty, *op. cit.*, p. 158.

³ William F. Spalding, *The London Money Market, A Practical Guide to What It is, Where It Is, and the Operations Conducted In It*, 3rd ed. (London, 1924), pp. 144-145.

the Clearing House. In 1805 part of the premises of Messrs. Smith, Payne and Smith's Bank on Lombard Street was occupied until 1833 when the organization moved to the new clearing house built by Sir John Key. The following year this building was purchased by the thirty-nine banks then in the association,¹ to which adjoining premises from time to time were acquired and remodeled to accommodate the increasing demands. Modern mechanical devices have been introduced and changes made in organization until to-day there exist well-equipped premises to suit present-day requirements.

The Bankers' Clearing House is under the management of the Committee of London Clearing Bankers. This committee had its origin in 1805 and as now constituted there is a representation from each clearing bank as well as the ex-officio membership of the Governor and Deputy Governor of the Bank of England. Election of the Chairman and Deputy Chairman takes place annually; the same Chairman may not serve two years in succession. The responsibility for supervising the managers devolves upon the Honorary Secretary whose tenure of office is unlimited.

In addition to the Honorary Secretary, the staff of the Clearing House consists of the Chief Inspector, the Deputy Inspector, and the Assistant Inspector. Each bank provides the staff necessary to attend to its own clearing business; in the Clearing House these clerks are amenable to the inspectors.

The British Bankers' Association, comprising the London Clearing Bankers, the Central Association of Bankers, the Country Bankers' Association, the West End banks, the banks of Scotland, Ireland, and Overseas, was organized as an outgrowth of the financial problems involved in the World War. Although this organization proved its effectiveness

¹ Matthews, *op. cit.*, pp. 12-13.

in the solution of the great financial problems of the nation and still functions to promote the general interests of banking, it does not in any way restrict the activities of the London Clearing Bankers' Committee.¹

While the Bankers' Clearing House is from the viewpoint of membership a rather exclusive organization designed to admit only those institutions which have a legitimate London business and in whom confidence can be reposed, yet non-member banks have one or more accounts with members or the Bank of England and thus enjoy many of the advantages accruing to clearing members without assuming the responsibilities. Thus all legitimate banking is benefited. The walks clearing provides for the collection of items in London not eligible for regular clearing.

SCOPE OF THE LONDON BANKERS' CLEARING HOUSE

There are three areas into which banks are grouped for clearing purposes, known as the Town, Metropolitan and Country Cheque Clearings, that is, the cash items handled by the London Bankers' Clearing House fall into these three classes. Although there are no definite lines of demarcation, the classification is rather definitive, as it is based, not on the distance from the Clearing House, but on the length of time necessary under existing transportation facilities to reach the Clearing House. Whenever a clearing bank opens a branch the Clearing House Committee classifies it into one of the three groups. Likewise, the committee of a local provincial town will decide whether the branch comes within the local clearing area.

In order to expedite the settlement of balances each clearing bank carries a balance with the Bank of England, as does also the Clearing House itself, under the caption "Account of the Clearing Bankers." It is a simple process for the

¹ Matthews, *op. cit.*, pp. 16-17.

Bank of England, when authorized by a clerk of the bank involved and by one of the Clearing House inspectors, to debit or credit the various member banks at settlement and to make antithetic entries in the "Account of the Clearing Bankers."

TOWN CLEARINGS

To fall within the classification of Town Clearing the banks and their branches must be within five or ten minutes' walk of the London Clearing House.¹ In order to attract certain types of business, such as that of stockbrokers and underwriters, it is a decided advantage to be included in the Town Clearing, as promptness of clearing is of great importance to them.

As will be observed in the Time Table, there is a morning and afternoon Town Clearing.

TIME TABLE OF LONDON BANKERS' CLEARING HOUSE²

	Ordinary Days		Saturdays	
	Open	Close	Open	Close
Metropolitan Clearing.	9:00 a. m.	10:30 a. m.	8:45 a. m.	9:50 a. m.
Returns..	....	4:10 p. m.	....	2:20 p. m.
Town Clearing—				
Morning....	10:35 a. m.	11:05 a. m.	9:05 a. m.	10:20 a. m.
Afternoon...	2:35 p. m.	4:10 p. m.	12:05 p. m.	1:35 p. m.
Returns..	....	5:05 p. m.	....	2:20 p. m.
Country Cheque				
Clearing	10:35 a. m.	12:35 p. m.	10:05 a. m.	11:35 a. m.
Returns..	....	12:35 p. m.	....	11:35 a. m.

During the war pressure the schedule was modified. There are also special schedules for Stock Exchange settling days, the first six working days in January and July, large dividend-payment dates, etc.

¹ Matthews, *op. cit.*, pp. 24-25; Minty, *op. cit.*, p. 119; Luther A. Harr, *Branch Banking in England* (Philadelphia, 1929), pp. 103-110.

² Table in Matthews, *op. cit.*, p. 41, slightly modified.

The clearing banks at their head offices list for the Morning Town Clearing all maturing bills of exchange, any items that missed the previous clearing, and the batches of town checks and drafts received in the morning mail from their branches already sorted according to the different clearing banks. After the list is verified and charged in the "Out Book" against the respective banks the parcels are dispatched by clerks to the Clearing House and delivered to the desks of the drawee bank or banks where they are payable. When each clearing bank has gone through this process every bank will have received charges from all the other banks. To the banks receiving the parcels the checks and drafts are known as "In-Clearing" and are listed at the Clearing House in the "In Books" by clerks of each paying bank. The checks and bills of exchange are then immediately dispatched to the head offices or branches on which they are drawn to be charged against the accounts of the various depositors.

The afternoon charges consisting of checks, drafts, etc., received over the counter during the day are added to the morning clearing to obtain the total town charges against each bank. In addition to items contained on the regular "Out" list, runners to the Clearing House present checks and bills paid in by customers shortly before the appointed time for closing; in fact, frequent calls are made during the afternoon. If the Clearing House doors are closed before the runners arrive payment is postponed until the next day. However, if the items are presented to the paying member banks within ten minutes after the last delivery at the Clearing House of the "unpaid" the banks will certify that the items will be honored the following day. This is known as "Marking," and such checks and drafts, which are virtually bankers' acceptances, must be presented for payment in the next morning's Town Clearing to the Clearing House.¹

¹ Matthews, *op. cit.*, p. 27.

Discrepancies between the totals of the "Out Clearers," or the "charge side," and the "In Clearers," or the "pay side," are not unusual. Differences in addition are rectified by the bank in error, but the differences in items are altered by the out clearer to agree with the pay side. Missing vouchers and differences in amount charged for a single item must be adjusted by the out clearer. The burden of proof is on him as the paying side has the final word.

After the respective claims have been agreed the balance is then determined and carried as a debit or credit, as the case may be, to the Clearing House Sheet. Thus the reports of the two banks will serve as offsets to each other, resulting in a balance. This will also be true of all banks, and the Clearing House will, therefore, transfer to the banks with debit balances the equivalent of the total credit balances of the paying banks. There will be neither a shortage nor an excess of money with the Clearing House.

To the balance of the Town Clearing are added the balances of the Country and Metropolitan Clearings. Thus the grand total of all clearing balances is included in the town balance sheets. The balances of the respective banks are entered by the head clearer of each bank in a General Balance Sheet which shows the debit or credit balance due to or from the Clearing House. On the basis of these balances the Transfer or Credit slips, later to be explained, are given to the Bank of England.

CLEARING FUNCTIONS OF THE HEAD OFFICE

The head office of each member bank serves as a coordinating center for the purpose of assembling the various clearing items and making the necessary preparation before their presentment to the Clearing House. At the close of business each day branches sort the clearing items into Town, Metropolitan, Country, Walks, and Agents, and after list-

ing them place distinctive colored bands around the sorted parcels for immediate identification and then send them to the head office. They are taken by messengers at the close of business on the day they are received to the head office, if the branches are in the Town or Metropolitan Clearing, but if the head office is too far away they are mailed in time to be received in the morning mails.¹ At the head office the items are sorted as soon as possible and charged against the various drawee clearing banks in the "Out Book" and then dispatched to the Clearing House. Bills of exchange as well as checks are included in Town and Metropolitan charges, but in the Country Clearing instead of being included the bills are sent for collection to the nearest branch or collection agency.²

The method of procedure is slightly different when the charges involved are payable at the head office of a bank or its town-clearing branches. In such cases the clearing branches present the items unsorted at the bank's desk in the Clearing House. In some instances the items are sorted by the "Out Clearers" at the Clearing House, but generally they are dispatched without sorting to the head office where they are sorted and then, they, like those sorted at the Clearing House, are taken by fast messengers to the paying branches for immediate presentment as the interval is brief—a little more than an hour³—between their receipt at the head office and the time when they must either be paid or returned to the Clearing House.⁴ It is not generally known that checks deposited with clearing banks just before closing time are presented at the Clearing House not more than ten minutes later and that within little more than an hour the

¹ Minty, *op. cit.*, p. 153.

² *Ibid.*, p. 160.

³ Matthews, *op. cit.*, p. 32.

⁴ *Ibid.*, p. 31.

depositor may learn their fate. The London Bankers' Clearing House boasts of the rapidity with which checks are collected—due to the continuous and frequent presentations in the afternoon.

The procedure in America is different. There are, for instance, three exchanges each day at the New York Clearing House. A preliminary exchange takes place at 9 a. m., the regular clearing at 10 a. m., and the exchange of returned items at 3 p. m. At the nine o'clock clearing most of the members present the items which accumulated since the ten o'clock clearing of the preceding day and which were prepared by night forces. The regular clearing occurs at 10 a. m., to which are added the results of the nine o'clock clearing and settlement made accordingly at ten o'clock. It will be observed that all checks received by the New York banks on clearing members after ten o'clock in the morning cannot be cleared until nine the next morning, whereas in London checks on other clearing banks which are presented just before closing time are presented for payment at the clearing house within ten minutes from the time of their receipt, and are subject to check by the depositor, provided the checks are honored, the fate of which can be known within a little more than an hour.

When the head office receives the checks, bills, etc., from the Clearing House those payable at the head office and all the bank's town clearing branches are sorted to the drawee branches. The items are then dispatched by messengers to the branches where they are immediately charged against the depositors' accounts or returned unpaid. The drafts and checks payable at the head office are sorted into the appropriate departments, and those drawn against accounts in the Town office are paid without advice against the balance kept on deposit by the drawer of the check or the acceptor of the draft. Items drawn against the Foreign or Country Office are paid on advice from the drawer.

METROPOLITAN CLEARING

In February, 1907, the Metropolitan Clearing¹ was instituted by the London Bankers' Clearing House to facilitate the clearing of items of branches and private banks within thirty minutes or about a five-mile radius of the head office, depending on transportation facilities. Clearing requirements made it necessary to extend the London clearing system to a larger area in order to include the suburbs. It was evident that the banks and branches in the outlying districts ought not to be included in the more expeditious clearing of institutions within a short distance of the Clearing House, yet it was equally apparent that some system should be devised to shorten the time of clearing so as to make more readily available for checking purposes the items deposited against the banks and their branches within a larger area than that embraced in the Town Clearing, but not so comprehensive as that included in the Country Clearing.

The Metropolitan Clearing is very similar to the Town Clearing and need not be described in detail. Like the Town Clearing, but in contrast to Country Clearing, bills of exchange as well as checks are included in the Metropolitan Clearing. The checks, drafts, and the like on the Metropolitan branches are not sent by mail but are called for by branch messengers who bring with them the morning charges from their branches and who return before three o'clock (present modified schedule) to the head office with the afternoon charges to catch the Afternoon Town Clearing.

As indicated by the Time Schedule on page 25, there is only one clearing each day in the Metropolitan and Country Clearings, the former beginning at 9 a. m. and the latter at 10:35 a. m., but there are two each day for Town Clearings, the one at 10:35 a. m. and the other at 2:35 p. m. The early hour of Metropolitan Clearing is necessary to permit

¹ Spalding, *op. cit.*, p. 150; Matthews, *op. cit.*, p. 168.

the messengers to return to the branches in time to allow the entry of checks received at the head office and to take back to the head office in the afternoon the charges received during the interim and also to return the unpaid items direct to the crossing¹ banks or branches. This early presentment expedites the work of the head office as it makes possible a more even flow of work and relieves the strain at 10:35 a. m. when the Town and Country Clearings are handled simultaneously.

INDEX LETTERS

At the time of the inauguration of the Metropolitan Clearing there was instituted another invaluable reform designed to facilitate the sorting of checks according to the clearing through which they were to pass. In the left-hand corner of all checks payable through the Clearing House there is one of the letters "T," "M," or "C" denoting respectively "Town," "Metropolitan" and "Country" clearing. The index letters not only enable the holder of a check readily to ascertain the required time for collection, but also facilitate sorting of remittances by the branches without the former awkward reference to clearing lists.

COUNTRY CHECK CLEARING

With improved banking facilities and the increased use of checks throughout Great Britain the old method of collecting country items by direct presentation became inadequate. As a result of the agitation of country bankers who planned to

¹ Crossing of checks is a safeguard authorized under the Crossed Cheques Act, 1906. Checks may be crossed *generally*, that is, not payable except through a bank; or they may be crossed *specifically* to a particular bank, that is, the check must be paid at that bank only. The object of crossing is to encourage the use of checks by making it more difficult for a thief to cash them. See Charles F. Hannaford, *Cheques: Their Origin and Development, and How They are Handled by an English Bank* (London, 1923), ch. viii.

organize in London a clearing house of their own, the London Bankers' Clearing House devised a plan in 1858 by which its existing machinery could be utilized for clearing country checks.¹

Bills and drafts not payable on demand are not collected through this agency, but only checks, as the title of the clearing implies. All country items not cleared through this channel are collected by the large clearing banks through their numerous branches or occasionally through agencies.

The Country Check Clearing includes practically all of the provincial towns in England and Wales. In contrast to the decentralized clearing in the United States, *London is the general clearing center for all England*. It is quite obvious that such a system could not be adopted in the United States because of the great distances involved. Even in England, however, as observed later under Provincial Clearing, there are some clearing houses in districts embracing the large cities and their immediate vicinities which effect local clearings.

With these few exceptions, checks on country banks are collected through the London Clearing House despite the greater complication involved than in either the Town or Metropolitan clearing. The country bank appoints as agent one or more of the London clearing bankers and, in order to avoid confusion, prints the agent's name on the bottom of its checks. Through this arrangement the country bank sends a single batch of checks on the various banks throughout the country (with the exception of banks in the Channel Islands, the Isle of Man, the Scilly Islands and the Scotch and Irish banks) to its London agent, who assumes no responsibility that should be borne by the sending bank but merely acts as clearing agent, instead of the former cumbersome practice of sending as many separate letters as there

¹ Matthews, *op. cit.*, p. 49.

were drawee banks or branches. Likewise, the country bank receives in one parcel all checks payable by itself to the various banks and makes a single remittance therefor.

As indicated by Mr. Matthews,¹ the settlement does not take place for two days after presentation, which makes the system more complicated than the Town and Metropolitan clearings. In contrast to these two clearings, the checks in Country Clearing are retained in the Clearing House until the "Out" and "In" clearers balance the charges, otherwise it would be a most difficult task to trace the error after the items were returned and distributed among the issuers.

Instead of the custom in the United States of sending unpaid or dishonored checks back over the same route they came, which was often circuitous, they are sent directly to the crossing bank, that is, the payee bank. This practice is also different from that of the Town Clearing where the "unpays" are returned, after being recorded in the Returned Check Book, to the Clearing House and in the afternoon clearing to the clearing bank presenting them for collection, and from thence to its branch. If an unpaid item arrives after four o'clock it is not sent with the other unpaid items but is entered as a separate charge against the presenting bank. The Metropolitan returned checks are treated the same as Country unpays and are sent directly to the branch of the collecting bank.²

Similar to the time collection schedule adopted by the Federal reserve banks, the country checks are received on a collection basis for most customers and become available after sufficient time—country checks two days, Scotch four, Irish five days—for their collection has been allowed.³

¹ *Op. cit.*, pp. 50-51.

² Minty, *op. cit.*, pp. 215-220.

³ *Ibid.*, p. 131.

THE BANK OF ENGLAND IN RELATION TO CLEARINGS

Previous to 1854, the clearing banks effected settlements directly with each other by the payment of Bank of England notes or cash, but the inauguration of a system by which each clearing bank was to maintain a "General Account" at the Bank of England against which adverse clearing balances could be charged made possible a single payment to settle the total net claims of the banks. Not until 1864 did the Bank of England come into the Clearing and then only on the "Out" side, that is, all the claims against clearing banks are cleared through the Clearing House but charges against it are paid directly by merely crediting the clearing banks' accounts. In other words, "The Bank of England presents, through the clearing house, all drafts drawn on clearing bankers paid in to it by its customers; but the clearing bankers do not present, through the clearing house, drafts on the Bank of England paid in to them by their customers. Such drafts are paid direct to the credit of their accounts at the Bank of England."¹ Thus the Bank of England is not a member of the Clearing House—it is "on one side only." Neither are the London branches of the Scotch banks, colonial banks, and other large institutions members of the Clearing House.²

The banks are careful to maintain in their General Accounts with the Bank of England large enough balances, the amounts of which are carefully withheld from the public, to meet the highest claims against them in the clearing settlement, but if any bank should have an insufficient amount, a temporary loan from the Bank of England could be obtained. Most of the issue houses, bill- and stock-brokers also carry accounts with the Bank.

¹ *Interviews on the Banking and Currency Systems of England, Scotland, France, Germany, Switzerland, and Italy*, U. S. Nat. Mon. Com. Pubs., 61st Cong., 2nd Sess., Sen. Doc. No. 405, 1910, pp. 11, 48-52.

² *Ibid.*, p. 48; Minty, *op. cit.*, pp. 200-203; Matthews, *op. cit.*, pp. 34-36.

Besides the West End and Law Courts branches in London, the Bank has eight other branches situated at Liverpool, Manchester, Newcastle, Leeds, Birmingham, Bristol, Hull and Plymouth. The district main offices of the large joint stock banks maintain accounts with these branches, which are used, as in London, to effect settlement with the provincial clearing houses.

In addition to the "General Account," which is used solely to settle adverse clearing balances, the banks carry "Transfer Accounts" with the Bank of England. These accounts are maintained so as to permit the banks to issue drafts for their customers on the Bank. The Government regulation that only legal tender or checks on the Bank of England are receivable for customs and excise taxes increase the popularity of the "Transfer Account." This account is augmented by the transfer of round sums, usually several million pounds, from the "General Account."¹

CLEARING HOUSE SETTLEMENT

As has been previously explained, the clearing banks and the Clearing House have accounts with the Bank of England. It is a simple matter under such circumstances to settle balances without the passing of so much as a penny piece.

The head clearing clerk of each bank at the end of the day takes the balance of the Town Clearing for the day, the Metropolitan for the previous day, and that of the Country Clearing for two days previously and strikes a final balance to ascertain the amount his bank is to pay, or to receive from the Clearing House. He then enters on a special slip the net debit or credit for the day's transaction. On a special ticket appropriate authorization is made to the Bank of England to *Transfer* from his bank's General Account "to the credit of the Account of the Clearing Bankers, and allow it to be

¹ Minty, *op. cit.*, p 203.

drawn, for by any of them," a sum sufficient to settle adverse balances, or, in the event of a favorable balance, a request is made to *Credit* his bank's General Account "out of the money at the Credit of the account of the Clearing Bankers." After the Clearing House Inspector has initialed the ticket it is taken to the Bank of England, the transfer made, the ticket countersigned and returned to the clearing bank concerned.

Originally it was the custom to settle balances by separate payments to each clearing bank in Bank of England notes or cash, but in 1841 the one-payment method was introduced. It was not until 1854, however, that payment was effected through the Bank of England by a transfer of balances which made the use of notes and cash unnecessary.

The magnitude of clearings (discussed later) of the London Clearing House is so great that some banking students without practical experience in English clearing and collection procedure are of the opinion that it effects all payments between the banks in England. It is a fact that a majority of checks on branches of English banks pass through the Clearing House, but there are also other means of collection, namely, branch or internal clearings, agents clearings, or more correctly collections, and the so-called walks clearing.

BRANCH CLEARING—INTERNAL

Owing to the numerous amalgamations, in which all but a few of the city and country banks have been absorbed, there are clearing banks which have approximately two thousand branches. Under such circumstances customers of one branch frequently deposit checks drawn on other branches of the same bank. Thus there arises the necessity for an internal clearing system as checks drawn on the various branches of the same bank cannot be sent to the clearing house.

Town and Metropolitan checks in the same bank are

handled differently from Country checks. They are not kept separate from the Town and Metropolitan checks of other banks, but are sorted into their respective categories and sent by the country branches to the head office. The checks on the country branches, on the other hand, are kept separate from the country checks against other banks and constitute what is known as "Branch" Clearing.

Upon arrival at the head office, the Town and Metropolitan checks on the bank concerned are kept together just the same as the checks on the other banks, but instead of sending them to the Clearing House they are sorted according to the drawee branches and totaled, after which they are picked up by messengers and delivered to the respective Town and Metropolitan branches before the regular clearings are received from the Clearing House. This early pick-up speeds up the clerical work of the London branches.

In contrast to the method of including, without separate classification, in Town and Metropolitan clearings the checks deposited in branches of the same bank, the checks paid into country branches of the same bank are kept distinct and sent directly to the head office. Before the country checks are sent to the head office they are sorted by the respective presenting branches, and on their arrival at the head office they, along with similar batches from the other branches, are sorted by the Branch Clearing Department according to the drawee branches. In the afternoon the batches are added and then mailed to the various drawee country branches. The drawee branches receive the checks in the mail the following morning and immediately enter them against the accounts of the drawers. Here the clearing principle is applied. In the absence of mistakes, the charges are offset by the credits on the books at the head office. The report of the head office to the branches indicates the charge against or credit to their respective accounts with the head office.¹

¹ Minty, *op. cit.*, pp. 121-124.

AGENCY COLLECTIONS

With the great development of bank amalgamations and the establishment of numerous branches throughout England there is less need for agency collection agreements. Collections through agents are still necessary, however, in Scotland, Ireland, the Channel Islands, Isle of Man and Scilly Isles. These are not included in the Country Check Clearing. In the last decade most of the English clearing banks have acquired Irish and Scottish bank affiliations which have obviated the necessity, in many cases, of English banks sending checks on banks in Ireland, Scotland, and the Channel Islands for collection to the nearest branch of an agent. Now the checks are sent to the head offices of their Scotch and Irish affiliated banks who collect through their branches.¹ A brief description of the collection methods in Ireland, Scotland, Channel Islands, Isle of Man, and Scilly Isles follows.

COLLECTION OF ITEMS PAYABLE IN IRELAND

Checks and other items payable in Ireland which are received on deposit by branches of English banks are sent to the London head office or London agent. The items received from the branches and correspondents are presented to the London office of the Irish bank which acts as clearing agent or if the English bank has an affiliated bank or branch near the drawee bank the items are sent to it.

If the English bank has no affiliation in Ireland the items are handled similar to the correspondence system in the United States. Irish collections are divided into two general classifications, namely, those payable in the Free State which embraces Central, Southern and Western Ireland with the Dublin Bankers' Clearing House as the chief clearing

¹ Minty, *op. cit.*, pp. 124-125.

agency, and Northern Ireland—Ulster—with Belfast as the clearing center.

Items payable in the Irish Free State are sorted into: (1) Checks, etc., payable at the English bank's Irish agent's principal Dublin office, (2) Checks payable at the principal Dublin offices of other banks, (3) Checks on all other Dublin branches, (4) Items payable in all towns in the Free State where the agent has no branch, (5) Items payable in the vicinity of such large cities as Cork, Limerick and Waterford, and (6) Items payable in other Free State towns where the agent has a branch. Items (1), (2), (3), and (4) are sent by the London office of the Irish bank to its head office in Dublin, where items (2) and (3) are sent through respective clearings and item (4) is sent through the Dublin Country Clearing. Items (5) and (6) are sent by the London agent direct to the respective branches, each branch being debited with the amount sent.

Checks drawn on banks in the Free State are cleared through the Dublin Clearing House. There are four exchanges each day. The first or morning clearing has two exchanges, one for notes and checks and another for checks on Dublin City branches except the head offices. In the second clearing held at noon checks on the principal Dublin offices and country branches in the Free State are cleared. In the afternoon clearing checks on the principal Dublin offices only are cleared. Each exchange or clearing bank has an "Exchange" account with the Bank of Ireland. Daily clearing balances are debited or credited to the banks' respective accounts as the clearings of the day determine. Settlements are made two times each week, on Tuesdays and Fridays. On settlement days the Bank of Ireland receives the drafts of debtor banks on their London agents and gives to the creditor banks drafts on its London agents. Banks having current accounts with the Bank of Ireland settle by

appropriate debit or credit entries to their accounts rather than by drafts on London agents.

Procedure of the Belfast Bankers' Clearing House is similar to that in Dublin. Items cleared are confined to those originating in Northern Ireland, either in the country or Belfast and vicinity. English and Scotch banks clear checks drawn upon banks in Northern Ireland through Belfast either direct or through the London office of the Irish agent. Items may be sent direct by the agent if they are drawn on its branch or a bank in the town where the agent has a branch.

The collection of checks drawn on Irish banks and deposited in banks or branches in Ireland is facilitated by reciprocal arrangements among the banks. Checks drawn on any branch or head office are exchanged by the branches of the various banks in the same town. Checks which cannot be sent through the local clearings are cleared through either Dublin or Belfast Clearing House, depending on the situs of the drawee bank.

Items payable in England and Wales which have been deposited in Irish banks or their branches are sent by them to their London agents. If they are eligible for clearing they are cleared in London in the usual way, but other remittances are delivered to the London office of the drawee bank or branch and in turn forwarded to the towns where they are payable.

The Irish and Scotch agent or correspondent of the English collecting bank charges a small commission, based on agreement, usually one-eighth of one per cent (minimum 3d.), for collection. The charge is not absorbed by the bank but is passed on to the customers. No collection charge is made to customers by English banks if the checks are drawn on affiliated Irish or Scotch banks. This is the nearest approach to exchange charges in England but which have been so prevalent in the United States.

COLLECTION OF ITEMS PAYABLE IN SCOTLAND

The procedure in Scotland varies slightly from that in Ireland. Branches of English banks, instead of sending direct, mail to their head offices in London or to London agents, checks and drafts payable in Scotland. The head offices or agents deliver the items to the London offices of the Scottish banks which act as clearing agents. The items are sorted into: (1) Items payable at the *chief offices* of the agent in Edinburgh, Glasgow, Aberdeen, and Dundee, and at *all* offices of other banks in the vicinity of these four cities. The items are then dispatched by the London office of the Scottish clearing agent to its chief offices in the four cities which are debited with the amounts. (2) *All* items payable in towns, with the exception of the four cities named, where the clearing agent has a branch and also items which are payable at the agent's branches in the four cities other than the chief offices. The agent sends the items for payment or collection directly to the branches and at the same time debits their accounts for amounts sent. (3) The final classification contains items payable in towns where the agent has no branch. The checks are sorted according to the banks on which they are drawn and then sent with accompanying check lists to the Edinburgh Clearing House where they are cleared to the head offices of the drawee banks.

Without the assistance of the Edinburgh Clearing House a more cumbersome method of clearing Scottish items payable in towns where the London clearing agent has no branches would be necessary. Under present arrangements, the Bank of Scotland and the Royal Bank of Scotland, known as the *two settling* banks, undertake alternately monthly to settle for the clearing banks by receiving from or giving to each clearing bank a voucher for the balance due by or to it for each day's clearing. Unlike the London

Clearings, there is a separate exchange of bank notes, the balance of which is carried to the check clearing on settling days, (Mondays and Thursdays) when the general balance is struck, which includes the note exchanges and clearings of checks and drafts for the same day and the two previous days. When the final balances for general settlement are determined the debtor banks give to the creditor banks memoranda which state that they will within four days transfer the balance due plus interest thereon to their credit in London where the Edinburgh clearing balances are ultimately settled by drafts on the London agents.

Items received on deposit by banks or their branches in Scotland but which are payable in England and Wales are sent in batches each day to the London office of each Scottish bank. The sorted checks are presented to London drawee banks which act as clearing agents. The Scottish bank's account would be credited and the various items delivered by messenger or post to the drawee branches.

It will be observed that there is no clearing involved in the procedure in Ireland and Scotland. It is a collection process, other than the fact that all branches forward their checks on Scotch and Irish banks to the head office where they are assembled and then presented to the collection agents as previously described.¹

COLLECTION OF ITEMS PAYABLE IN CHANNEL ISLANDS, ISLE OF MAN, AND SCILLY ISLES

Checks payable in these islands are not included in the Country Check Clearing. The method of collection is similar to that employed in Ireland and Scotland. The checks, which are sorted to the drawee banks, are sent by the branch or bank to their head office or agent in London.

¹ Minty, *op. cit.*, pp. 229-235; Hannaford, *op. cit.*, pp. 126-131; William Graham, *op. cit.*, pp. 59-60; Spalding, *op. cit.*, p. 143.

The head office sorts them according to the place of payment and then sends them to the local branch, if there is one; if not, the checks are sent to a local correspondent bank for collection. The head office debits the branch or agent with the amount sent.¹

AGENCY TRANSACTIONS

Although the use of agents for the collection of checks has greatly declined since the English banks acquired affiliations in Scotland and Ireland, the agents are still used for other transactions. (1) When a customer requests that a check be specially presented that he may learn its fate as soon as possible it is necessary to send it to an agent if the customer's bank does not have a branch in the town of the drawee bank. (2) Inasmuch as drafts drawn on country towns cannot be sent for collection through the clearing house, they must be sent to a branch in the town on which they are drawn. If there is no branch some agent must be used. Likewise, bills drawn on private addressees in country towns are collected through the nearest branch or an agent. (3) Where a company has a chain of shops throughout the country it is necessary to accept deposits in the various towns for the credit of the firm's head office and to make available to any shop funds deposited in the head office or in any branch. The service is easily rendered in towns where the bank has branches but in other towns agency relations between banks must be established. In that event the shops make their deposits, so-called "customers' lodgements," in the branch of some agent bank and this agent bank will then credit the account of the firm's bank. By this system of branch and agency agreements the large enterprises receive first-class banking facilities regardless of the location of their many shops. (4) If a customer of a bank moves temporarily to a town where his

¹ Hannaford, *op. cit.*, pp. 131-132.

bank has no branch, banking facilities are provided through agency arrangement. His bank through the head office will authorize another bank as agent to honor his checks up to a certain amount. He will draw his checks against his regular branch account, the agent will cash them and collect from the drawer's bank by presenting the checks through the clearing if the amount does not exceed, say, £20, but if the amount is large the checks are sent direct to the drawee bank and a charge made against the Agency Account. If the arrangement is reciprocal and no agency or interest charge is made the check is sent directly to the branch concerned and in that event the agency account is not affected. (5) Although it is unusual for a London bank to draw a draft on a country agent as any one of its branches will issue to a customer in exchange for his check a draft on the London head office, which the payee can cash at any branch or deposit with any bank; yet English banks still issue drafts on Irish and Scottish agents and *vice versa*. Despite the great merger movement in England there are still a few country banks remaining which do not have head offices in London. When their customers request drafts on London they must draw on their London agents.¹

WALKS CLEARING

Before the establishment of the Metropolitan clearing system in London in 1907, the Walks Clearing, or more correctly collections, were of considerable importance. The area comprised the section beyond the Town Clearing proper but still too near to be classed with the Country Check Clearing. When the Metropolitan Clearing was inaugurated most of the London Walks were abolished. Some items, however, could not be collected through the Clearing House, hence it was necessary for the clearing banks to organize a system for the collection of such items.

¹ Minty, *op. cit.*, pp. 229-235.

The Walks Clearings are comparable to the City Collection Department of the New York Clearing House Association. In both instances items which are not eligible for clearing are collected by messengers. In New York City the collections are made by a special department of the Clearing House, whereas in London each bank has its own organization. The methods seem to be adapted to the special conditions: in the former there is a sufficient number of clearing banks to justify the existing arrangement; in the latter the number seems too few for a similar method.

The Walks Departments of the London banks collect: (1) Items payable at the London and West End banks which are not included in the clearings, such as checks on the London offices of Scottish, Irish, foreign, and colonial banks. (2) Post-office orders, money orders and drafts payable at the various departments of the Government. (3) Bills drawn on concerns that are within convenient distance.

Districts are mapped out to permit the walk messenger to deliver the various items for collection, have his luncheon, and then return to collect for the items in time to deliver his settlement to the head office that the checks might go through the day's clearing. Payment is received in notes, coin, and for large amounts in checks and banker's payment.¹ If payment is not made a notice is left with the drawee stating that the bill is at the collector's head office and unless it is paid before the close of business for that day it will be protested and returned to the indorser.²

¹ Banker's payment is a draft drawn by a bank on itself payable to another bank. It is free from the usual two-penny stamp required on other checks. As the draft is usually for a large amount it is necessary to clear it quickly, hence it is drawn on a Town Clearing bank or branch.

² Minty, *op. cit.*, pp. 125-127; Hannaford, *op. cit.*, pp. 125-126, 160; Matthews, *op. cit.*, pp. 7, 67.

PROVINCIAL CLEARINGS

Although London is the clearing center for the whole of England, there are local clearings in provincial cities where there is sufficient business. With the exception of these local clearings confined to the same town or district, all checks, regardless of distance between collecting and paying branches, are cleared through London despite the fact that the bank which has received the check is much nearer than London to the bank on which the check is drawn. Such an arrangement could not be adopted in the United States owing to the wide geographical area involved. The clearing system in America was, as shown later, adapted to the prevailing conditions.

The area included in provincial clearings varies considerably. In some instances not only are checks cleared against the banks on which they are drawn but also on their branches within a certain specified distance from the clearing house. In Liverpool the branch must be within a radius of one and a half miles if the unpaids are to be delivered direct to the bank, otherwise the area covered for the clearings varies according to the election of the individual member bank. At Sheffield the local clearing area has a radius of twenty-five miles, while that of Birmingham is restricted to a one-and-a-half-mile area.

The small towns have weekly settlements, rather than clearing, in which the weekly adverse balance is paid by Bank of England notes, cash, or more frequently with a draft on London. There are daily clearings in towns where there are four or more banks and settlement is effected in the same manner as that of the smaller towns. Usually the place of meeting is annually rotated among the members and the one under whose auspices the clearing is held is placed in charge. The manner of paying balances varies considerably depending somewhat on the nature of the clearing organization.

Sometimes settlement is effected by bank notes, sometimes by drafts on London agents, or by transfers between accounts kept at a branch of the Bank of England.¹

In the large cities, such as Birmingham, Bradford, Bristol, Hull, Leeds, Leicester, Liverpool, Manchester, Newcastle, Nottingham and Sheffield, where there are several banks and branches, the clearing is very similar to that at London. Each bank or head branch in the towns where there is a branch of the Bank of England keeps an account with it to be used for settlement purposes. In such event, the clearing takes place in that branch under the management of an officer of the Bank of England. But where the Bank of England has no branch the clearing banks take turn in managing the clearing. Settlement is made by drafts on the head office of a bank or on a London agent.

Only checks and bills payable at local banks and branches or those within a prescribed area are eligible for clearing. Provincial clearing statistics thus provide a valuable index of trade conditions and purchasing power of the district. Local clearings also lighten the ever-increasing burden of the London Country Clearing and also expedite clearing and collections.

Unlike the London Town Clearing, in which no checks or drafts are payable to other banks or branches over the counters of clearing banks but must be presented to the Clearing House, in Provincial Clearings special checks, usually for large amounts or in urgent cases, may be presented outside of the clearing for either payment in some instances or more usually for acceptance to be presented in the next clearing. This provision is similar to the privilege accorded, but seldom used by Metropolitan clearing bankers.

¹ Sir Robert Harry Inglis Palgrave, *Dictionary of Political Economy* (London, 1919), vol. i, p. 307; Minty, *op. cit.*, pp. 120-121; Matthews, *op. cit.*, chap. viii.

CLEARING STATISTICS

The London Bankers' Clearing House did not publish clearing statistics until 1868, in fact, the data up to that time were not preserved. Bankers were jealous of their position and feared evil consequences if their relative clearings were made known.

Clearing data since that time have been used as indices of the trade conditions of the country. Clearing-house returns should be used with great care, however, as there are so many variable factors exerting their influence. Factors of varying degrees of intensity are constantly affecting economic development and unless the data are considered in relation to the great variety of disturbing influences conclusions are likely to prove deceptive. Clearing statistics of large financial centers, like New York and London, do not furnish satisfactory barometers of trade. The money market is subject to fluctuations of the stock market. A period of speculation influences the volume of clearings. Call loans of enormous volume at times exert a disproportionate pressure on the money market. Cash transactions call for check payments, but the obviation of check payments made possible by the operations of the Stock Clearing Corporation of the New York Stock Exchange is indeed surprising. The flotation of a large government or corporate issue affects the index. Changes in prices without a corresponding change in volume also disturb the measure. Then, too, many checks are issued for cash which are not cleared. A test which has received considerable support for more than a decade in America is the total debits to individual accounts, but its value as a business barometer has not been definitely determined. It is not within the scope of this chapter to enter into an involved discussion of the value of bank clearings as a measure of trade volume as an indicator, or if more optimism is manifest to-

ward them, as a barometer. That the clearings data are of significance most economists are agreed.¹

The following table of clearings reported by the London Bankers' Clearing House shows an increase of 500 per cent in turnover since 1900. Town Clearings in 1929 constituted 88.9 per cent of the total clearings, Metropolitan Clearings 4.1 per cent and Country Check Clearings 6.8 per cent. London Town Clearings are unsatisfactory as an index to the volume of trade as they include checks arising out of stock-exchange transactions and also in respect to the money market. The effect on clearings of stock-exchange operations is indicated by the proportion on stock-exchange account days to the total turnover. The proportion seems to be on the decline. In 1900 it amounted to 14.9 per cent and in 1929 to 9.8 per cent. The highest recorded was in 1881 when it reached 21.7 per cent.² Country check clearings and provincial check clearings are better measures of the amount of trade throughout the country because they are less affected by non-trade operations. In 1929, Provincial Clearings totaled £1,599,213,000, as compared with the three classes of clearings by The Bankers' Clearing House in London amounting to £44,896,677,000. These statistics clearly show that the great bulk of clearings are effected in London.

LIMITATIONS OF THE ENGLISH SYSTEM

England furnishes the best example of a nation-wide clearing system adapted to meet the requirements of a highly developed credit mechanism operating in a concentrated area. The widespread use of checks necessitated the establishment of an efficient clearing and collecting system, in fact, their development was concurrent. The present system, like most

¹ See Spahr, *op. cit.*, chap. xii and his bibliography for an extensive discussion of this absorbing subject.

² Matthews, *op. cit.*, p. 82.

economic devices, was not the product of a single generation but was developed during a period of more than one hundred fifty years.

Under the guidance of the London Bankers' Clearing House, a system was devised to suit their special needs; the general principles and procedure of which have served as guides to other nations. The Town, Metropolitan, and Country Check Clearing systems are peculiar to England. Provincial clearings, agents clearings or collections, walks collections, and internal clearings are not peculiar to the English system, but their adaptation is unique. The settlement services rendered by the central bank, that is, the Bank of England, as we shall observe as our study progresses, is different from the method of settling in the other countries to be considered. It will be interesting to compare the clearing services of this Bank with those of the Reichsbank, and later with the systems employed in Canada and the United States.

Banking concentration in England has confined the operations to a few banks. Internal clearings are therefore of more significance. Clearing statistics, however, are less valuable as a business barometer and their volume is not comparable with the clearing data of countries where branch banking is not so highly developed. From this point of view the system in the United States furnishes the greatest contrast. The decentralized clearing in this country with its wide geographical expanse is to be contrasted with England where London is the general clearing center for the entire island.

Inasmuch as clearing settlements are made by a central institution in Germany, somewhat similar in this regard to the service performed by the Bank of England, a logical arrangement requires that a description of the German clearing and collection mechanism should follow this chapter on

English procedure. Although the system in England preceded the existing German clearing houses by more than one hundred years, (the former 1773, the latter 1883) there has been comparatively little improvement as the same principle of offsets is employed, being merely adapted to special local customs and legal requirements. It will become apparent that the German system is more complex. The employment of check and giro transfers, the services of the postal check system and the mortgage and savings institutions, have necessitated the organization of rather complex machinery which is focused on the Reichsbank as the central clearing agency.

CHAPTER III

CLEARINGS AND COLLECTIONS IN GERMANY

GENERAL

THERE are in Germany two general classes of transfers involving clearing operations. One has to do with the transfer of checks, drafts and similar instruments, the other is concerned with security transactions. This chapter is devoted to a description of the transfer and clearing mechanism of the former class.

The transfer of funds, that is, payment without the use of currency, is effected by either check or *giro*. The check and giro systems are both employed by two distinctly different types of organizations, namely, the banks, including the Reichsbank, and the Postal Check System (*Postscheckverkehr*). Clearings and collections in Germany require the cooperation of a variety of institutions. Foremost in these operations are the Reichsbank, the Grossbanken and Postal Check System, but such institutions as the clearing houses (*Abrechnungsstellen*), country check clearing office (*Scheckaustauschstelle*), the local clearing house in Berlin (*Eilavis-Verband*), the clearing house of the mortgage banks (*Hypotheken-Abrechnungsstelle*), the giro and clearing organization of the savings banks (*Deutsche Giro-Zentralverband*), and the clearing organization for securities but which also clears certain other items (*Berliner Bank des Kassen-Vereins*) are indispensable to the expeditious transfer of funds and the clearance of the credit instruments used for effecting payment.

The clearing and collection procedure of the foregoing organizations vary considerably in detail. The same institutions in some instances engage in the operations incident to the clearing and collection of bank checks, postal checks, and also giro transfers. Some organizations confine their activities to a single class. A description of the procedure of each institution will show their points of similarity and difference and will at the same time give the *modi operandi*. The interrelation between them will also be considered.

Descriptions of transfers by giro, postal check, and bank check will serve as an introduction to the collection and clearing mechanism. In the interest of clearness, comparisons will be made and the functions performed by the institutions involved will be described.

GIRO SYSTEM

Giro is a method of book payment whereby the payer directs the financial institution in which he carries a deposit account to transfer funds from his account to that of another, whether or not the payee carries an account with the same institution. In the latter event, the payer's firm arranges for the transfer of funds in the payee's favor without any effort on his part. The cooperation of the payee is unnecessary.¹

Characteristics

Various names are applied to this type of payment, the most popular are: *Girozahlung*, *Giro-Verkehr* and *Überweisungverkehr*. The giro-transfer requires three parties; the debtor, creditor, and an intermediary in which both have accounts, generally a bank or other institution performing similar functions. Payment is effected by book entries; the

¹ Friedrich Leitner, *Das Bankgeschäft und Seine Technik* (Frankfurt a. M., 1910), p. 186.

payer's account carried with the intermediary institution is debited and that of the payee credited. Payment is completed the moment the payee's account is credited, after which the payer loses the right to recall his order. The giro transfer is not distinctive in this regard as the rule also obtains when checks for deposit are employed.¹

The payee may cooperate by informing the payer that he maintains a giro account and that payment by transfer to the credit of his account is acceptable. The payment itself, however, is effected without any assistance whatsoever of the payee. Usually he will not learn of the transfer until it has been completed and title has actually passed to him. This characteristic distinguishes the *giro* from the check where payment is also completed by book entries, but in which the cooperation of the payee is necessary. He indorses the check and deposits it with his bank—the giro payee does nothing.

Essentials to Giro Transfer

There are three essentials to giro-transfer.

1. The payer must always know the institution with which the payee maintains an account; otherwise it would be quite impossible for the payer to direct his institution. Payment by check does not require the payer to know the bank in which the payee carries an account, if, indeed, with any.²

2. The payment is made exclusively by book entries. It is a *conditio sine qua non* for giro that no currency be employed. This is not equivalent to the statement that currency payments ordered by the proper check form cannot be arranged through the *giro-account*. The term "giro" is not

¹ Leitner, *op. cit.*, pp. 186 *et seq.*

² Fritz Schmidt, *Der Nationale Zahlungsverkehr*, 2 vols. (Leipzig, 1920), vol. i, p. 62.

applied for giro-account in the same strict sense as for the principal function of this account, that is, the giro-transfer. Giro-account is used *predominantly* for book payments; giro-transfer is used *exclusively* for book payments. In institutions which are primarily devoted to giro transfer it is quite common that checks payable in cash, or more strictly speaking, money orders, proceed in the same manner as giro transfer. This procedure, however, does not make the cash payment a modification of the giro transfer—the giro mechanism is simply used.

If the payer and payee maintain accounts with different institutions a giro relationship between them must be established. Such organizations may clear directly, or through the mechanism of a third institution. But if any currency payment in settlement of differences is made between them, it can no longer be considered giro transfer, even though the account of the payer may be debited and that of the payee credited.

3. The third essential of giro-transfer requires the payer to communicate with his depository office which, in turn, notifies directly or indirectly the office of the payee.¹ This is in contrast to the indirect course pursued by a check. The giro movement is direct—the check less direct. The course of the giro is: Payer——payer's office——payee's office——payee.

MECHANISM OF GIRO TRANSFER

Clearing of Local Giro Transfers

Giro transfer may be effected between institutions in the same locality or in distant cities. When the transfer is intra-city the financial institution of the payer may clear directly with the institution of the payee. In large cities and for large institutions the clearings are managed by a clear-

¹ Schmidt, *op. cit.*, p. 62.

ing organization which may either maintain accounts for the various members (*Bestand-haltende Zentrale*) or simply facilitate the clearing operations. In the first instance, the balances shown after the clearing is completed may be settled simply by debit and credit entries to the members' accounts carried with the clearing house, while in the second case, the members, after the balances are ascertained by the clearing procedure, must arrange for payment in some other manner. In fact, practically all clearing organizations for giro transfer in Germany maintain accounts for settlement purposes with the Reichsbank and its branches.

The clearing of giro transfers is more cumbersome and consequently slower than the clearing of checks because it is necessary for the giro clearing organization to make separate entries for each clearing item. Experience has shown that the book entries for checks require less detail than the explanatory entries for clearing giro transfers.¹

Clearing of Inter-City Giro Transfers

Should two institutions located in different cities draw on a common clearing bureau, the mechanism is no more complicated than in the local transfer. The situation becomes somewhat more involved if the office of the payer or payee is a branch office necessitating the intervention of the main office or, if the clearing organization maintains a local branch. Inter-city transfers through the medium of two clearing bureaus which are not organically inter-connected by a third clearing organization common to both, are rare and exist only when the accounts are maintained with the same organization.

In most instances inter-city giro transfers require less time than check payments. The payee's account is usually credited in 24 hours for giro transfers effected by the Reichs-

¹ Schmidt, *op. cit.*, pp. 204-205.

bank, whereas there is a delay of from five to ten days for check payments arranged through the provincial banks and cleared through the *Berliner Scheckaustauschstelle*.¹

CHECK AND GIRO SYSTEMS OF THE REICHSBANK

Consideration is directed to the functions which the Reichsbank performs in connection with the check and giro systems. There is a definite line of demarcation between its clearing functions and transfer accommodations.

Reichsbank Transfers

The Reichsbank maintains its transfer accommodations for the occasional use of any person or firm (*Giro-Übertragungen*) and as a permanent convenience to its depositors (*Giro-Verkehr*). *Giro-Übertragungen* are payments in favor of giro depositors by individuals and firms which have no giro account with the Reichsbank. Giro transfers between depositors of various branches are also called *Giro-Übertragungen*.²

The *Giro-Verkehr* is only useful for large enterprises and, therefore, in comparison with the volume, the number of accounts is small. Although any one may avail himself of the *Giro-Verkehr*, the giro depositors, with the exception of a few large business enterprises, consist of banks. Generally no charge is made for transfers and collections. As an offset for these and other services rendered, the Reichsbank pays no interest on giro deposits. The non-payment of interest results in a tendency of the customers to keep deposits down to their immediate transfer requirements; however, the Reichsbank demands the maintenance of minimum deposits which vary in size according to the importance of the clients. In general, the amount required is small,³ but from

¹ Schmidt, *op. cit.*, pp. 207-209.

² Leitner, *op. cit.*, p. 192.

³ Reichsbank, pamphlet, "Allgemeine Bestimmungen für den Geschäftsverkehr" (1927), p. 43.

the *Berliner Grossbanken* a minimum deposit of several million Reichsmarks is expected.¹

The deposit accounts are called *Giro-Konten*, although payments are not only made by giro transfer, but also in currency. Each customer receives two sets of blanks, namely, (1) red check blanks to be used for giro transfer from one account to another, and (2) white check blanks for each cash payment, but which also may be issued for deposit only. White blanks are used in making withdrawals. The depositor may also liquidate his account by draft, drawn on himself and payable to the Reichsbank.² Even though a white blank is executed, the Reichsbank will not, under the law of 1883, give currency to the payee if he has a giro account, but will merely charge the account of the payer and credit that of the payee.³

The Reichsbank discriminates between limited and unlimited giro business. The secondary branches, which conduct a limited giro business, impose definite requirements concerning the amounts to be transferred. Transfer involving the red blanks, in amounts from 1,000 to 150,000 Reichsmarks, are transferred directly between the secondary branches. If the amounts exceed 50,000 Reichsmarks transfers are made, provided they are requested in connection with drafts or collateral transactions but which yield to the Reichsbank profits equivalent to 10 days' interest. For transfers below 1,000 Reichsmarks a small charge is made.⁴ The Reichsbank also effects transfers by telegraph. In recent years the scope of its telegraphic giro system has been extended by the acceptance of urgent and so-called "lightning" telegrams.

¹ Ed. Heilfron, *Geld-Bank-und Börsenrecht*, 2nd ed. (Berlin, 1912), p. 97.

² *Ibid.*, pp. 100-101.

³ Leitner, *op. cit.*, p. 196.

⁴ Schmidt, *op. cit.*, p. 68.

The telegraphic Giro system has also been made available for payments made by parties not having an account with the Bank, as well as for cash paid in for the purpose of being again paid out, and for money payable on bills sent for collection. In the international Giro system reichsmark cheques are now accepted for transfer to the countries adhering to the system. . . . The notification of the purpose for which the transfer is effected is also transmitted free of charge by the Reichsbank.¹

In 1929, the telegraphic giro transfers effected in Germany by the Reichsbank numbered 109,527 and amounted to 13,545 million Reichsmarks, while the foreign giro transfers numbered 18,490 with a value of about 50,000,000 Reichsmarks. During the same year the total "incomings on Giro account" amounted to 375 billion Reichsmarks for both domestic and foreign and the "outgoings" were practically the same. Of the "incomings" 28 billions Reichsmarks were cash, 114 billions were on customer accounts, 151 billions were local transfers, and 82 billions consisted of transfers from branch offices. About the same general proportion existed with the "outgoings." Thus in 1929 more than 92 per cent of the total giro business was effected without cash changing hands. At the end of 1929 there were 43,022 giro account holders with the Reichsbank.²

COOPERATION BETWEEN REICHSBANK GIRO AND POSTAL CHECK SYSTEM

The Reichsbank maintains for all its branches postal check accounts with the postal check bureaus of their respective districts. With the postal check bureau in Berlin two accounts are maintained, one by the treasury department and another by the security department of the Reichsbank. Deposits by a Reichsbank giro depositor to his account may be

¹ *Annual Report of the Reichsbank (1928)*, p. 8.

² *Ibid.* (1929), pp. 16-17.

made by payment to the account of the Reichsbank which is maintained with the postal check bureau. When the deposit with the postal check bureau is made the depositor may ask for a red check on the giro account of the postal check bureau of the Reichsbank. By sending this red check himself by special delivery mail the depositor may hasten the time of crediting his Reichsbank giro accounts.¹

REICHSBANK INTERNAL GIRO TRANSFERS

Although it is customary for the secondary branches of the Reichsbank to *clear* with the main office indirectly through the proper main branch, they may *transfer* with each other directly. For instance, if a secondary branch desires to make a transfer to another branch or secondary branch, not within its district, such transfer is made directly, but the superior branch is sent a copy of the transfer order and communicates in turn with the main office in Berlin.

After the account of the payer has been debited, the branch in question completes the "*Giro Advice*," that is, lists which contain the names of consignor and consignee, amount and the purpose for which the transfer is made. In 1928, the Reichsbank introduced an improvement in the system.

The chief improvement was an arrangement by which since September 8 bank transfers have been written with a carbon copy, an entry being also made on the cheque of the purpose for which the transfer is intended. When these transfers are booked, the carbon copy is transmitted by the Reichsbank through the post direct to the Giro customer whose name is given on the transfer, if the latter has not already called for the carbon copy (in the case of local transfers) in the course of the day; the cost of postage is defrayed by the Reichsbank. The advantages of the new arrangement for all Giro customers of the Reichsbank are self-evident. The drawing of the cheque and the advice to the recipient take place in one operation,

¹ Leitner, *op. cit.*, pp. 229-230.

separate letters of advice are no longer necessary, and the customer is saved the cost of postage.¹

All orders to be placed on the *Giro-Avise* of the day, must be in the Reichsbank at 3 p. m., or, against an extra charge, at 4 p. m. The *Giro-Avise* are made out on different sheets for each receiving branch and are generally received by the addressed branch the next morning by 11 o'clock. All credit entries of the payee's branch, based on the *Giro-Avise* of the payer's branch, are transferred on a new sheet, the "*Eingegangene Giro-Avise.*"

The clearings of the transfers are handled by the main office in Berlin. Transactions of the Secondary branches are cleared through the account maintained by the superior branch with the main office. The main office credits the account of the receiving branch and debits that of the forwarding branch, usually the following morning after the *Giro-Avise* ordering payment have been mailed by the branch. As soon as the *Eingegangene Giro-Avise* sent by the receiving branch are in the hands of the main office, they are compared with the *Avise* received from the sending branch and discrepancies traced.

Accounts of the secondary branches are carried with the main branches of their respective designations,—the accounts of these subsidiary branches do not appear on the books of the head office. Each main branch also clears the transactions of the subsidiary branches operating under its supervision.

BANK DES BERLINER KASSEN-VEREINS GIRO TRANSFERS

Each depositor in the *Bank des Berliner Kassen-Vereins* receives two sets of check blanks, one for payments by book transfers and the other for payments in cash. The tech-

¹ *Annual Report of the Reichsbank, loc. cit.* (1928), p. 8. For a description of the former practice and the number of entries required, see Schmidt, *op. cit.*, pp. 86-90.

nique of giro transfers is similar to the Reichsbank giro system with the exception that all transfers of the *Kassen-Verein* are local. The depositor is given a *Giro-Konto-Gegenbuch* (Pass book) in which all payments received for his account are entered. The depositor himself makes all debit entries. Should the account show a debit balance it must be provided for before noon of the same day.¹

GIRO TRANSFER SYSTEM IN HAMBURG

In Hamburg the system of book payments is somewhat different from that in other cities of Germany. The check system is scarcely used. The distinctive characteristic of the transfer and collection system of Hamburg is the giro system now operated by the main branch of the Reichsbank in that city.

Present System in Hamburg

The system accommodates a large number of clients of the seven member banks comprising local banks and branches of the *Berliner Grossbanken*.² Under the previous practice, the member banks paid to their customers one per cent interest on giro accounts if the credit balance was below 100,000 and above 1,000 Reichsmarks; only the Reichsbank made an exception by paying no interest at all. In 1919, all banks adopted the non-interest-paying policy of the Reichsbank. The giro accounts in Hamburg are used for the smallest accounts, even for a pfennig, since, owing to the large volume of giro transactions, the banks do not object to small transfers.³

A depositor of one of the seven member banks who de-

¹ *Geschäfts-Ordnung für den Inkasso-und Giro-Verkehr* (1929), pamphlet issued by the *Bank des Berliner Kassen-Vereins*.

² *Die Handelskammer zu Hamburg, 1865-1915*, edited by Ernst Baasch, vol. ii, pt. i (1915), pp. 333 *et seq.*

³ Schmidt, *op. cit.*, pp. 77-80.

sires to make a transfer, simply completes an order slip (each member bank uses a different color) which he may present to his bank up to 12:30 p. m., but orders are accepted until 2 p. m. against the payment of an extra charge.

The peculiarity of the system is that transfers will be made even though the account does not show a sufficient balance. Thus a depositor can draw against payments expected during the day, which privilege increases the effectiveness of his working capital. The payer's bank reserves the right until 3:15 p. m., to recall the transfer unless the cover has in the meantime been provided. No payment in currency is made unless the drawer's balance is sufficient to cover the withdrawal.

The order slips are exchanged among the clerks of the seven banks daily at 9:30, 12:30, 1:30 and 2:30, in a room of the Reichsbank provided for that purpose. Credit entry in the payee's account is made immediately and he is notified by a memorandum of his bank, unless he prefers a pass book which is handed to him by his bank daily after 8:30 a. m., but which must be returned not later than 12:30 p. m. for the new entries.

The transactions of the banks are settled daily between 3:45 and 4 p. m. Until then, all discrepancies are rectified and all transfers recalled for which no credit balance was provided. The balances for settlement are determined in practically the same manner as in the *Abrechnungsstelle* of the Reichsbank, explained on pages 78-83. In contrast, however, to the procedure in the other cities of Germany, practically all transfers through the Reichsbank giro account and all inter-city transfers are cleared through the *Abrechnungsstelle*.¹ After the balances have been struck the cred-

¹ *Die Deutschen Abrechnungsstellen*, 1908, p. 3, 1909, p. 5. This official publication of the Reichsbank, prepared by its statistical department, will be referred to hereafter as "*Abrechnungsstellen*."

itor bank draws, on a yellow form, a draft, which, if in agreement with its credit balance, is approved by the manager of the *Abrechnungsstelle*. The approved draft authorizes the local main branch of the Reichsbank to credit the creditor bank's giro account carried with it. When the clearing results in an unfavorable balance the debtor bank executes a green form which authorizes a charge against its giro account.

Special arrangement is made for the payment of foreign trade transactions, as, under German laws, the title to goods in transit passes with the delivery of the shipping documents. Accordingly, the seller demands payment not later than the delivery of the shipping documents. The purchaser's bank, under such circumstances, will not make the transfer unless his credit balance is sufficient, because when a transfer is made against shipping documents the bank must renounce its right to recall the transfer, otherwise, the shipper would not, under the local rules, deliver the documents until after 3:15 p. m., after which time no transfer can be recalled.

The following table shows the volume of clearing-house operations. It will be observed that local giro transfers constituted a large percentage of all clearings.¹

TABLE II
OPERATIONS OF GERMAN CLEARING HOUSES (BILLIONS REICHSMARKS)

	1928		1929	
	Amount	Per cent	Amount	Per cent
Local giro transfers	58.40	51.6	73.86	58.5
Postal checks	6.21	5.5	9.62	7.6
Other checks	27.32	24.2	22.45	17.9
Drafts	12.74	11.3	14.08	11.2
Miscellaneous	8.44	7.4	6.21	4.8
Total	113.11	100.0	126.22	100.0

¹ *Abrechnungsstellen, loc. cit.* (1928), p. 12; (1929), p. 10.

THE EILAVIS-VERBAND

The Berlin banks for a long time cherished the desire to bring the volume and efficiency of local transfers to the same degree of perfection enjoyed in Hamburg, but their problem was more difficult. In Hamburg there were only seven banks concerned, whereas in Berlin there were many institutions interested in transfers and clearings. It was necessary, therefore, to devise a different system to meet the special requirements in Berlin.

Not until 1920, was a satisfactory plan devised. In that year, the Berlin clearing house (*Abrechnungsstelle*) members, with the exception of the postal check bureau, organized as an affiliate of the clearing house, the *Eilavis-Verband*. Until then, quick transfers in Berlin were made by certified checks deposited with the payee bank. For the transfer of large amounts Reichsbank giro orders were used and passed through the clearing house like checks. The "*Avis*" (advice to the payee's bank that the transfer was arranged) was sent through the mails, by postal card, or by the so-called "*Buntavis*." If the mails were used the payee's bank did not receive the advice until the morning following and would not, therefore, credit his account sooner, although the Reichsbank giro account of the payee's bank had been credited the previous afternoon. In the event the *Buntavis* was used, the memoranda and the red giro check were given to the Reichsbank at the same time, but they were not given to the receiving bank until its messenger called for them. In the years just preceding the inauguration of the new system, the Grossbanken exchanged among themselves the *Buntavis* directly and settled the balances only through the Reichsbank giro accounts. Other institutions continued to advise by postal cards. The employment of two different methods necessarily complicated the entire system. Also, the delay in crediting the payee's account after advice and

credit had already been made with the Reichsbank giro account was objectionable.

Through the establishment of the *Eilavis-Verkehr* the methods of local transfers were unified and all transfers not handled through the *Abrechnungsstelle* (clearing house) or *Kassen-Verein* were made eligible for transfer through it. The new organization also arranged to pay all *Eilavis* transfers to the Reichsbank giro account of the payee's bank on the same day.

Under the new arrangement all the members notify each other by telephone of transfers made. Thereupon, the receiving bank sends its messengers to the *Kassen-Verein*, which serves as a clearing center where the messengers of the various receiving and paying institutions exchange their *Avise*. This routine is carried on until 1:30 p. m., but no organized meeting is held for the exchange of the *Avise*. Based on these *Avise*, the credit entry is made by the payee's bank in his account. This is done without risk because the remitting bank is under contract to make remittance to the payee bank's Reichsbank giro account the same day.

Settlements are effected directly through Reichsbank giro accounts. For this purpose the forwarding bank prepares a separate and itemized list (*Sammelavis*) for each institution to which transfers are made. Totals are transferred to a summary sheet, which, together with the *Sammelavis* and red giro checks, are filed with the Giro Department of the Reichsbank up to 1:40 p. m. The next morning copies of the *Sammelavis* are handed by the Reichsbank to the messengers of the receiving banks.¹

The following table shows by years the number and amount of items transferred, the average amount and also

¹ Otto Schoele, "Das Berliner Eilavisverfahren," *Bank-Archiv, Zeitschrift für Bank- und Börsenwesen*, vol. xx (March 15, 1921), no. 12, p. 182; *Abrechnungsstellen*, loc. cit. (1920), p. 10.

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segregates the transfers of the Reichsbank. It will be observed that there was a decided decline in 1924. The decrease in volume was due to two chief causes; the first being the drastic deflation that followed the adoption of the Dawes Plan; the second was the result of a change in procedure. In that year, the members of the *Eilavis-Verband* discontinued the practice of frequent telephonic information and also the immediate deposit of the *Avisé* with the *Kassen-Verein*. To notify the members and to send a messenger to the *Kassen-Verein* once only during the day, greatly reduced the expeditious feature of the system and naturally reduced its efficiency.¹ Of late, the rules have been more strictly enforced. This fact, together with the increased circulation of drafts, account for the present increased use of the system.²

TABLE III
EILAVISVERKEHR IN BERLIN *

Year	Number of Items (Thousands)	Total Amounts (Billion RM)	Average Amounts (Thousand RM)	Local Giro transfers of Reichsbank (Billion RM)
1929	735.3	39.5	53.7	92.9
1928	683.8	37.3	54.6	85.2
1927	561.1	29.9	53.3	74.4
1926	374.8	26.6	70.9	59.8
1925	305.1	12.1	39.8	42.5
1924*	221.7	5.3	23.7	43.0

* The inflation years prior to 1924 produce noncomparable figures.

POSTAL CHECK SYSTEM

The Postal Check System in Germany was patterned after a similar organization in Austria. The sequential develop-

¹ *Abrechnungsstellen*, loc. cit. (1924), p. 7.

² *Ibid.* (1925), p. 6.

³ *Ibid.* (1929), p. 48.

ment was from the postal savings to the postal money order system. The Austrian method of postal check payments not only served as a model but also stimulated the introduction and development of the German system. Shortly after the enactment of the German Postal Savings Bank Act of 1885, the Postmaster-General in an official memorandum recommended the establishment of a postal check system.

But not until January 1, 1909, was a plan finally placed in operation by ministerial decree. The system was introduced throughout Germany and the measure enacted into law by the Reichstag in 1911.¹

Organization

The German Postal Check System was formerly operated throughout the Reich as a separate division of the Government-owned and operated postal system. But in compliance with the Dawes Plan the system was organized as a corporation which is entirely owned by the Government. The central executive bureau for the postal check service, like all the other departments of the postal system, is the *Reichspostministerium* (Federal Postal Ministry) in Berlin and its chief executive (*Reichspostminister*) is *ex officio* a member of the Federal Cabinet.

Of the thirteen postal check bureaus (*Postscheckämter*) in Germany, nine are situated in the Northern part,—in Berlin, Koenigsberg, Breslau, Leipzig, Hamburg, Hannover, Cologne, Frankfort-on-the-Main and Karlsruhe; three are in Munich, Nuernberg and Ludwigshafen of Bavaria and the remaining one, the bureau of Wörttemberg, is in Stuttgart. The postal check bureaus are affiliated with the accounting bureaus of the various general postmaster districts of which each province has not more than three. The ac-

¹ Max V. Heckel, "Postscheck," revised by Fritz Schmidt, *Handwörterbuch der Staatswissenschaften* (Jena, 1925), vol. vi, pp. 984-988.

counting bureau operations are connected with the main treasury department of the postal system in Berlin which serves as the central organization.¹ These bureaus manage exclusively the accounts of all postal check depositors.² The operations are organized to such a degree that the bulk of the work requires little education and intelligence and can therefore be performed by low-salaried clerks.

Users of the System

Although postal money orders are used in Germany in the same manner as in the United States, for greater convenience, the Postal Check System is more commonly used. Large business concerns prefer to receive and make payments of substantial amounts by bank checks. The bank check is also used by others in making payment in person or by messenger. Paying habits of individuals are largely governed by the discouragement of banks in the use of checks for small amounts. Despite the disinclination of firms to utilize the system for their own convenience, they maintain postal check accounts primarily for the convenience of their customers. Retailers, professional people, institutions, and city and government departments find the Postal Check System convenient.³

Transfer Mechanism

If, in making giro transfers or actual payments through the Postal Check System, the payer and payee are in different postal check bureau districts, the check control department transcribes all the transfers on lists known as Giro B sheets for each bureau. At the same time *Belastungszettel* (charge slips) are prepared to direct the proper charges against the

¹ Fritz Schmidt, *Der Nationale Zahlungsverkehr*, *op. cit.*, vol. i, p. 65.

² *Ibid.*, p. 65.

³ Fritz Schmidt, "Bargeldloser Zahlungsverkehr," *Handwörterbuch der Staatswissenschaften*, 4th ed. (Jena, 1924), vol. ii, p. 337.

payers' accounts. From the check control department the Giro B sheets go to the customers' accounting department and are there charged to the customers' accounts. The sheets are then returned to the check control department and mailed to the other twelve bureaus.

Upon receipt of the Giro B sheets and the payers' order blanks, they are passed from the incoming mail department to the check control department for inspection and thence to the customers' accounting department. The sheet, upon which are listed the accounts to be credited, serves as an authorization for the credit entries. The middle part of the payer's order blank is returned to his bureau, the one end is sent to the payee as notice of the credit to his account and from whom received, while the other end of the blank is retained in the beginning by the payer.

Five times each month, namely on the 4th, 10th, 16th, 22d and 29th, each postal check bureau reports in round figures to the central office in Berlin the total credit balance due from and the debit balance payable to each of the twelve other bureaus, and simultaneously sends copies to the respective bureaus. This preliminary balancing is designed to prevent any bureau from becoming too heavily indebted to other bureaus without adequate provision for liquidation. By the 14th of the following month, the bureaus exchange acknowledgments of the amounts due to them from the previous month. The balances are based on the giro lists of which the bureaus concerned have identical copies. Discrepancies must be corrected not later than the 18th of the month, as on this date each bureau reports to the central office in Berlin the balances due from the other bureaus for the transactions of the previous month. The reports are accompanied by acknowledgments of the other bureaus regarding their balances payable. Settlements for the adverse balances are made by checks on the accounts of the postal check bureaus carried with the Reichsbank.¹

¹ Schmidt, *op. cit.*, vol. i, pp. 73, 90-92.

Modus Operandi

In opening a postal check account (*Postscheckkonto*) to be used for both check and giro payments an initial deposit of a nominal amount must be made and always maintained as a minimum deposit. The profitableness of small deposits is debatable, the income thereon being negligible.¹

In many instances the individual who opens an account cannot operate directly with the postal check bureau of his district as, it will be recalled, there are only thirteen bureaus throughout Germany. To assist the depositor, all post offices, post agencies, and even country mail carriers accept applications to open accounts. The applicant simply executes the prepared forms, signs them (signature need not be attested before a notary public) and makes the desired deposit. The local post office forwards the application to the postal check bureau of the depositor's district and at the same time notifies it of the amount of the deposit received. The local post office has then completed its function. All future communications of the depositor are made direct to the bureau, and when it is in another town the mails are used. The local post office is connected with the postal check system only in so far as it accepts deposits for the bureau and makes payment in currency upon its order.² A charge of .05 Reichsmarks is imposed on deposits up to 25 Reichsmarks and .15 Reichsmarks on larger deposits. No interest is paid on the deposits.

Each depositor, for a small charge, receives three sets of check blanks. (1) One is for giro transfer (*Überweisung*), that is, for making payment to another account of the Postal Check System. (2) A second set of checks for *Auszahlungsanweisungen*, that is, payments in currency to the desig-

¹ Heckel, *op. cit.*, p. 985.

² Heilbron, *op. cit.*, p. 115.

nated party or to bearer.¹ (3) The third set, *Zahlkarten*, which the depositor gives to his debtors for making payment in currency on his postal check account. The debtor uses this method of payment rather than the postal money order as it is cheaper. The *Zahlkarten* are frequently attached to the invoices used by manufacturers for the convenience of their customers. In the event that the debtor has a postal check account he disregards the *Zahlkarten*, using instead his own giro-transfer blanks.

When either the giro transfer or the *Auszahlungsanweisung* is employed the payer sends his order by mail to his postal check bureau which, in turn, communicates with the payee's bureau, in case the payee resides in a different district. Specially issued envelopes may be employed, without stamps, in mailing the order to the payer's bureau. The payer may simply drop his envelope in any mail box and it will be forwarded as first class mail without charge.

For giro payments the payer must give the name of the postal check bureau of the payee and also his name, account number, and city, but the street address need not be given. He may obtain this information from the directory of depositors periodically furnished to all depositors. It is common practice for companies to print the number of their postal check account on their letterheads. Upon receipt of the payer's order, the payee's bureau makes the proper credit entry to his account and forwards to him a statement of his account which includes a stub, prepared by the payer, containing the information relative to the payer's transfer.

The debtor makes payment by *Auszahlungsanweisungen* usually: (1) When the payee has no postal check account, or (2) when his postal check number or bureau cannot be ascertained, or (3) in the event the creditor requests cash. The maximum amount of an *Auszahlungsanweisung* is

¹ Heilbron, *op. cit.*, pp. 120 et seq.

10,000 Reichsmarks. Should the remittance exceed this amount, it must be split up by executing a sufficient number of order blanks.¹

In contrast to the *Überweisungen*, the *Auszahlungsanweisungen* may also be issued to a designated person and mailed direct to him or to bearer, but they are not transferable by endorsement—in contrast to a regular bank check. These bearer checks must be presented for payment within ten days to the payer's postal check bureau. If the payee has a postal check account, he may deposit the check in his own bureau or in that of the payer and request a giro transfer in lieu of currency. These bearer checks are not so frequently used because of the risk involved.

Should an *Auszahlungsanweisung* order be issued and mailed directly to the payee and he in turn submit it to the payer's bureau, the bureau would on its own accord ascertain whether the payee maintains a postal check account so that a giro transfer might be effected. If the payee has no account or desires currency he cannot receive payment of the bureau directly, but such payment is arranged by the bureau through his post office. No risk is involved if checks thus transferred are lost. The disadvantage of sending the *Auszahlungsanweisung* direct to the payee instead of delivering it to the bureau is the inevitable delay which is entailed. In this case the envelope must be stamped. The payer usually resorts, therefore, to this method of payment only in the event that he must at once show his ability and willingness to pay. The *Auszahlungsanweisung* may also be advantageously used if the depositor wishes to make a withdrawal. He would execute the form to bearer and receive in exchange the desired currency or, if he desires, mail the form and request the bureau to make delivery through his post office.²

¹ Heilbron, *op. cit.*, p. 123.

² *Ibid.*, pp. 123-126.

CHECKS AND DRAFTS COLLECTION SYSTEM IN GERMANY

In Germany both checks and drafts are collected for individuals, firms and other financial institutions, by the Reichsbank, Grossbanken, other banks, postal system, mortgage banks, and savings banks. A brief description of these collection agencies will follow in order.

Reichsbank Collection Activities

The Reichsbank collects for banks, firms and individuals, checks and drafts on banking and other places through the medium of its 456 branches.¹ The items must be payable in a city on which the Reichsbank accepts bills for discount, in other words, in a place where at least a sub-office is maintained or in a city abroad where correspondent relations have been established, such as in New York, where fifteen of the largest banks including the Federal Reserve Bank of New York are correspondents. Occasionally checks payable in other cities are received for collection. All collection items must be payable within 14 days and drafts must have at least five days to run. The amounts of the collection items are not immediately credited to the customer's account, but instead an entry is made to the effect that they have been accepted for collection.²

Checks accepted for collection must meet certain formal requirements, provided in sections 1, 2 and 7 of the Check Act. The check itself must be executed in compliance with the law. It must be drawn on banks, financial institutions, credit associations or savings banks. In addition, the check must be negotiable in form and not antedated. Checks payable in foreign currency are also received for collection, pro-

¹ *Annual Report of the Reichsbank, loc. cit.* (1929), p. 19.

² Bruno Buchwald, *Die Technik des Bankbetriebes, Ein Hand- und Lehrbuch des praktischen Bank- und Börsenwesens* (Berlin, 1918), pp. 133 et seq.

vided the depositor is willing that the amount be credited in Germany Currency.¹

Collection Charges

A small charge is imposed for collection, but in some instances, the Reichsbank is satisfied with the interest for a few days on the amount collected. Collection of all checks drawn on the Reichsbank is handled by all the branches of the bank free of charge, but for items on other institutions nominal charges are imposed.² The schedule of collection charges of the Reichsbank is:³

COLLECTION CHARGES OF REICHSBANK

Nature of Collection Items	Rate of Charge
Checks drawn on Reichsbank	No charge.
Drafts payable at the Reichsbank:	
a. At the same branch	No charge.
b. At another branch	$\frac{1}{4}$ of 1%—at least $\frac{1}{8}$ RM.
Checks drawn on Clearing House Members:	
a. If in same locality as collecting branch of Reichsbank	No charge.
b. If in different locality from collecting branch of Reichsbank	$\frac{1}{4}$ of 1%—at least $\frac{1}{8}$ RM.
Checks drawn on institutions maintaining giro accounts with the Reichsbank:	
a. If giro account is maintained in the same city as the collecting branch	No charge.
b. If giro account is in another city	$\frac{1}{4}$ of 1%—at least $\frac{1}{8}$ RM.

The collection service of the Reichsbank, despite the modest charges, has not been utilized to any considerable extent, as indicated by the following table:⁴

¹ *Allgemeine Bestimmungen über den Geschäftsverkehr mit der Reichsbank* (May, 1927), p. 66.

² Letter to the author from the Reichsbank, dated December 23, 1929.

³ *Geschäftsverkehr mit der Reichsbank*, loc. cit., pp. 106-107.

⁴ Compiled by the author from data in the 1924, 1925, 1926, 1927, 1928 and 1929 *Annual Reports of the Reichsbank*.

TABLE IV
COLLECTION STATISTICS OF THE REICHSBANK

Year	No. of items collected (Thousands)	Total Amount (Billion RM)	Average Amount (Thousand RM)	Collection Charges (Thousand RM)
1924	283.8	3.7	—	249.2
1925	281.3	3.1	11.2	362.0
1926	243.1	2.2	9.0	383.9
1927	239.8	1.9	7.9	—
1928	241.4	1.8	7.3	—
1929	278.0	1.6	5.8	—

Collections by German Banks

Besides the Reichsbank, practically all banks of importance collect checks drawn on and drafts payable at other banks. Some of the *Grossbanken* and other banks specialize in collections. They consider the collection of drafts especially important and compete for this business with intermediaries. Drafts must be deposited for collection several days before maturity. Like the Reichsbank, the other banks do not give immediate credit on collection items; it is postponed until transfer has been made from the paying institution. A small commission is charged, usually constituting only a small fraction of one per cent. Oftentimes no charge is made at all, the profit of the collecting bank consisting of a few days' interest by deferring the credit to the customer's account.¹

The practice, however, is not uniform. One of the largest *Grossbanken* in Berlin informed the author that ² "We handle the cashing of checks for our own customers without charge irrespective of whether the check has been drawn on this institution or another." Another *Grossbank* stated that

¹ Buchwald, *op. cit.*, pp. 133 *et seq.*

² Official correspondence to the author in 1929.

it has no standard practice, but treats the matter individually, specially discriminating between banks and other customers and whether they are in Germany or abroad. For certain of its customers the bank handles the transactions entirely free of charge, whereas it makes a certain charge for others, either by charging a certain commission or by deferring the credit to the account for a few days.¹

The various banks utilize their own collection facilities whenever possible, rather than draw on the services of the Reichsbank which pays no interest on giro accounts. The Grossbanken handle their collections largely through their network of branches which are distributed throughout the Reich. Their extensive systems are further expanded through their correspondent relations with other banks. Payments between the various branches of the same institution are cleared through the main office. Reciprocal collection agreements among the Grossbanken make possible an arrangement whereby the amounts collected remain on deposit with the collecting bank. These amounts are offset by similar services rendered by the other banks. Large foreign credits are collected by drafts which are either remitted to the creditor or sold on the Berlin Stock Exchange.

Collection through the Post Office

In the small towns where only a single bank exists the post office serves as the agent of the creditor. Checks and drafts of small amounts, not exceeding 800 Reichsmarks, are submitted to the post office of the sender with a money order or postal check blank properly executed. These blanks are used to transmit payment to the creditor when payment has been received from the drawee bank.²

¹ Official correspondence in 1929 to the author from another Grossbank.

² Buchwald, *op. cit.*, p. 136.

Collections by Bank des Berliner Kassen-Vereins

The *Kassen-Verein* collects for its members, checks, drafts, and invoices (primarily for securities) which are payable in Greater Berlin. The district for the collection of drafts is coterminous with the postal district of Berlin, but for checks there is a special district. If the payer is not a member of the *Kassen-Verein* the checks are sent for collection by messenger to his office or residence.¹ These collection activities are interrelated with those of the *Abrechnungsstelle*, because the *Kassen-Verein* is a member thereof and turns over to it such bills and checks for clearing which it receives from its own members and which are drawn on members of the *Abrechnungsstelle*, or which are domiciled with it.²

CLEARING HOUSES (ABRECHNUNGSSTELLEN) IN GERMANY

Abrechnungsstellen

The clearing facilities provided for the convenience of customers of a group of banking institutions and which are external in nature, should not be confused with the internal clearing mechanism of the giro transfer system, previously described. The giro transfers of the Reichsbank are nationwide in character, whereas the clearing operations of the *Abrechnungsstellen* are local in nature. Although the clearing houses are independent organizations the Reichsbank directs their officers, and participates in their activities like other members and also houses them in the buildings of the Reichsbank in the various communities where they are located.³

¹ Buchwald, *op. cit.*, p. 74.

² *Miscellaneous Articles on German Banking*, U. S. Nat. Mon. Com. Pubs., 61st Cong., 2nd Sess., Sen. Doc. No. 508 (1910), p. 232.

³ *Miscellaneous Articles*, *loc. cit.*, pp. 227 *et seq.* Unless otherwise indicated by the context, whenever the term "clearing house" is used, it has reference to the *Abrechnungsstelle*.

As previously stated, Hamburg inaugurated a method of clearing at an early date in German banking history. The Reichsbank was rather slow to adopt the improved methods and it was not until 1883 that it established clearing houses in 9 cities of Germany. The increase in number of clearing houses was exceptionally slow during the early history of the movement. In 1908, there were only 17 clearing houses, but by 1920, the number had increased to 37, and at the end of 1929, to 71.¹

The operations of the clearing houses extend merely to bills, checks, drafts, and vouchers and in some localities to securities. In Berlin, the *Abrechnungsstelle*, in a sense, has a rival in the *Bank des Berliner Kassen-Vereins*. The nature of the business handled by these two clearing institutions are somewhat different. The latter institution was organized in 1823 and because of its long history of successful operations the former organization has studiously avoided unnecessary encroachments upon its business.²

Admission to membership in the *Abrechnungsstelle* is restricted to banks and the postal check bureaus and requires the consent of all members. The great care in the admission of new members is due to the fact that the technique of clearing makes it necessary to extend for a few hours unsecured loans. Admission to membership, therefore, is regarded in banking circles as the acid test of credit standing. In 1929, the 71 clearing houses had a membership (including the Reichsbank's branches concerned) of 768 as compared with 844 in 1928.³ The decline in the number of participants was chiefly due to bank mergers in 1929.

The postal check bureaus are also members of the *Abrechnungsstellen*. The clearing items submitted by them consist

¹ *Abrechnungsstellen, loc. cit.*, various volumes; Schmidt, *op. cit.*, p. 109.

² *Miscellaneous Articles, loc. cit.*, p. 227.

³ See Table V, p. 80.

TABLE V

CLEARINGS OF ALL CLEARING HOUSES (*Abrechnungsstellen*)¹

Year	Clearings			Means of Settlement		No. of clearing members end of year
	Number of items (Millions)	Amount (Billion marks to 1923, thereafter Reichsmarks)	Average Amount (Reichsmarks after 1923)	Credit to Giro-Account (Billion marks)	Per cent of amount settled by off-setting	
	1	2	3	4	5	6
1883..	.1	.9	5,930	.4.	....	85
1885..	2.1	12.6	6,020	3.3	73.9	112
1890..	2.8	18.0	6,370	4.2	76.9	116
1895..	3.6	21.1	5,810	4.8	77.3	115
1900..	5.2	29.5	5,680	6.5	77.8	126
1905..	7.3	37.6	5,120	8.5	77.3	137
1910..	12.5	54.3	4,360	12.0	78.0	222
1915..	10.0	58.1	5,813	20.5	64.7	258
1920..	22.5	695.8	30,972	277.0	60.2	464
1921..	27.3	1,072.1	39,189	332.3	69.0	518
1922..	38.6	6,367.8	164,791	1,109.0	82.6	546
1923*	49.2	2,397.7	48,721	667.4	71.7	599
1924..	18.7	31.5	1,683	8.9	71.8	698
1925..	28.5	50.9	1,790	12.6	75.3	697
1926..	31.9	56.9	1,785	13.7	75.8	749
1927..	40.4	104.6	2,590	23.9	77.1	797
1928..	44.7	121.0	2,710	27.2	77.5	844
1929..	46.3	126.2	2,729	29.4	76.7	768

* In 1923 inflation year, columns 2 and 4 in 1,000,000 trillion marks, and column 3 in 1,000 trillion marks.

almost exclusively of checks deposited with them but drawn on the Reichsbank and the *Grossbanken*. The items cleared through the *Abrechnungsstellen* against the postal check bureaus consist of postal checks drawn by their depositors, including those drawn by the various banks and their branches. These clearings usually result in considerable

¹ *Die Deutschen Abrechnungsstellen im Jahre 1929*, Bearbeitet in der Statistischen Abteilung der Reichsbank (Berlin, 1930), p. 6. Condensed by the author.

debit balances which are charged against the postal check bureau's giro accounts.¹

Table V shows a steady increase (disregarding the war period) in the number of items cleared, the amount cleared, settlement by giro payments, percent of offsetting and, with the exception of 1929, the number of members. A wholesome growth is evident.

CLEARING TECHNIQUE

The clearing room of the *Abrechnungsstelle* contains a desk for each member where the representatives of the member banks convene each morning before 9 o'clock under the chairmanship of an official of the Reichsbank. The representatives of the various member banks, after having sorted the items according to the banks on which they are drawn, deliver them in the morning clearings. The deliveries are accompanied by three copies of clearing sheets which give the names of the submitting bank and of the drawee bank with the amount of items drawn against each. At 9 o'clock, clearing begins in which the items and lists are exchanged. One copy of each list is retained by the *Abrechnungsstelle*, the second is presented to the consignee, while the third is compared by the representative of the receiving bank with the items received and if found to be in agreement is signed and returned to the bank which made delivery. The representatives of the various banks return immediately to their various offices where the items cleared are checked against the depositors' accounts. Should there be any irregularity the items are returned at the next meeting to the delivering banker who presents them again, in the clearings of the next day. This arrangement is practiced in order to protect the refusing bank against any errors it may have committed in refusing to pay the items.

¹ *Abrechnungsstellen*, *loc. cit.* (1911), p. 3; (1924), p. 5.

At 12:30 p. m., there is a second clearing which is identical in nature with that of the morning clearing. Settlement takes place at the 4 o'clock meeting, but no new transactions are submitted.¹ At this meeting the clearing members present the *Abrechnungsblatt* (clearing sheet) which contains the names of the member banks in the middle of the sheet and opposite their names on the debit side the amount which they owe and on the credit side the amount which is due them. The difference between the debit and credit sides indicates the amount owing to or due from the clearing member on the day's clearings. From these various sheets the clearing house manager prepares the *Bilanzblatt* which shows the net amount due to or from each member. Naturally, the total debits and credits should balance, otherwise an error exists. After the balances have been struck the chairman of the *Abrechnungsstelle* authorizes the Reichsbank to debit or credit the giro accounts of the members of the *Abrechnungsstelle* as shown by the *Bilanzblatt*.² It will be observed that the final settlements are made by bookkeeping entries and in no sense require the physical transfer of funds.

In addition to the service rendered by the Reichsbank and its branches for members of the *Abrechnungsstellen*, they perform a somewhat similar service for banks which are not members of the clearing houses and also for banks in all cities which have no *Abrechnungsstelle*. In these instances the transfers are cleared and settled directly through the Reichsbank giro account.³ The extent of this service is shown in the following table.⁴

¹ Buchwald, *op. cit.*, p. 76.

² Schmidt, *op. cit.*, p. 111; Buchwald, *op. cit.*, p. 82.

³ *Abrechnungsstellen*, *loc. cit.* (1926), p. 6; *Annual Report of the Reichsbank*, *loc. cit.* (1928), p. 17.

⁴ *Abrechnungsstellen*, *loc. cit.* (1928), p. 51; (1929), p. 51.

TABLE VI

LOCAL CHECK CLEARINGS THROUGH THE REICHSBANK GIRO ACCOUNT
(Do not include *Abrechnungsstellen* and *Eilavisverkehr* in Berlin)

Year	No. of items (Millions)	Amount (Billions RM)
1929	9.4	4.5
1928	7.8	3.9
1927	5.6	2.7
1926	3.4	1.2
1925	3.2	1.7
1924	2.4	1.5

The offsettings in the *Abrechnungsstellen* do not constitute such a large percentage of the total volume as in the clearings of New York and London. The main reason for the smaller proportionate volume of clearings is the fact that the clearing system is linked up with the giro system by the payment of balances through giro account. Clearings of the *Abrechnungsstelle* and the Reichsbank giro transfer supplement each other. In order to determine to what extent the whole mechanism dispenses with the employment of currency it is necessary to combine the volumes of both systems and to compare the total with the payments made in currency to and from the Reichsbank giro accounts. In Hamburg, where the Reichsbank giro transfers are included in the clearings, the offsettings compare favorably with the best international standards.¹

THE SCHECKAUSTAUSCHSTELLE (COUNTRY CHECK
CLEARING OFFICE)

Inasmuch as one of the main objects of the *Abrechnungsstelle* is to expedite the clearing operations, only such checks are cleared as are drawn on clearing members at their head

¹ *Abrechnungsstellen, loc. cit.* (1909), p. 5; (1911), p. 5.

offices, branches or subsidiary branches in Berlin. This practice is necessary as no check is paid until the drawer's account has been examined. Out-of-town checks could not be cleared under this custom, yet they constitute a fairly large number, as shown in the table on page 85.

To facilitate inter-city check payments it is customary for each bank to list on the reverse side of its checks the names of the main office, branches, secondary branches and in some instances of affiliated banks where the checks can be cashed. However, until the establishment in 1910 of *Die Berliner Scheckaustauschstelle* (country check clearing office in Berlin), checks on provincial banks were presented by messenger at their Berlin offices.

Under the present arrangement checks on provincial banks with paying offices in Berlin are cleared through the *Scheckaustauschstelle*. Its membership consists of members of the *Abrechnungsstelle*; the number of associated institutions in 1929 being 20. Clearings are handled twice daily in a room of the Reichsbank. The procedure is similar to that of the *Abrechnungsstelle*, but settlement is postponed five days and is then made through the *Abrechnungsstelle* in connection with its other clearing settlements.¹

The figures for the various years show considerable fluctuation. The decline of the number of items from 408,404 in 1913 to 218,512 in 1924, was, according to the annual report of the *Abrechnungsstelle*, due to the 7-day settlement procedure. The loss of interest caused by this long delay was considered excessive in times of money stringency and high interest rates. Creditors in most instances, therefore, preferred to collect large amounts from the drawee banks directly. To overcome this objection the period from the exchange of checks to the settlement of the balances due was

¹ *Abrechnungsstellen, loc. cit.* (1909), p. 5; *Annual Report of the Reichsbank*, 1929, p. 17; Buchwald, *op. cit.*, pp. 82-84.

repeatedly shortened; in 1924, from 9 to 7 days and in 1925, from 7 to 5 days as compared with 4 days in 1913. This change in the rules showed a favorable result. The number of items increased in the following year by 46.2 per cent and the total amount by 36.6 per cent. Later the figures declined because the members adopted the practice of collecting only the small items through the *Scheckaustauschstelle* and the large items by messenger.¹ The trend, as indicated by Table VII, is decidedly unfavorable.

TABLE VII
CLEARINGS OF THE BERLINER SCHECKAUSTAUSCHSTELLE (*Country Check Clearing Office, in Berlin*)²

Year	Clearings		Average Amount (Reichsmark)
	Number of items	Volume (1000 Reichsmarks)	
	1	2	3
1913	408,404	185,161	454
1924	218,512	59,585	273
1925	319,450	81,373	255
1926	405,183	86,702	214
1927	280,199	65,232	233
1928	109,341	34,854	319
1929	68,236	27,169	398

CLEARINGS OF DER BANK DES BERLINER KASSEN-VEREINS

Two different sets of rules are applied to clearings among members of the Kassen-Verein. One pertains to invoices arising primarily in connection with security deliveries and the other to checks.

¹ *Abrechnungsstellen, loc. cit.* (1924), p. 6; (1925), p. 5; (1926), p. 5.

² *Ibid.* (1929), p. 40.

1. *Clearing of Invoices.* At the time the invoice is presented to the clearing house, the creditor executes for his debtor a statement bearing the legend "value received," although no payment has yet been received. The Kassen-Verein immediately credits the account of the creditor, subject to collection, enters the amount in his *Giro-Konto-Gegenbuch* and at the same time debits the account of the debtor although the invoice has not yet been submitted to the debtor for his approval. At the time the Kassen-Verein receives the invoices it also receives from each sending member a list enumerating the amounts of all invoices (*Borderaux*) filed for collection. The totals of the list must agree with the amount credited to the account of the submitting member. The next morning the invoices are handed to the messenger of the debtor member and simultaneously a debit entry is made in his *Giro-Konto-Gegenbuch*. Incorrect invoices are immediately returned by the debtor and the Kassen-Verein reverses the previous entry.¹

It will be observed that the Kassen-Verein simply makes the appropriate debit and credit entries to the accounts of the various members concerned. The clearing principle is here applied. The process indicates the net debit or credit for each member and when once ascertained a single entry to the member's account suffices.

Study of sections 7, 8 and 9 of the rules of procedure of the Kassen-Verein indicates the degree of efficiency attained.²

SECTION 7

Against the amounts payable by the receiving member his deliveries to others are taken into account, at the discretion of the Bank.

¹ Buchwald, *op. cit.*, pp. 71 et seq.

² Free translation from *Geschäfts-Ordnung für den Inkasso-und Giro-Verkehr*, pamphlet published by the *Bank des Berliner Kassen-Vereins* (October, 1929).

SECTION 8

The amount of the items submitted for collection, or the balance determined by the offsettings as provided in section 7, will be entered at once by the Kassen-Verein in the giro account pass book. To a credit balance the stamp of the Bank will be affixed, a debit balance will be entered in red ink.

Any correction in the balance resulting from an error is usually made at the next clearing.

The depositor must see that the pass book is in the possession of the Bank at the regular time for balancing.

SECTION 9

The statements (pass book with invoices and other evidences of debt) are usually at the disposal of the depositor at 9:30 and will be presented to a messenger properly introduced. Firms to whom deliveries are to be made are under obligation to receive the deliveries and statements in sufficient time to permit them to return the rejected items the same day. Otherwise they cannot hold others responsible for any damage or inconvenience resulting from the delay.

Section 7 gives the Bank discretionary power in passing on the eligibility of items presented and which are to serve as offsets against deliveries. Section 8 authorizes immediate credit or debit to the giro accounts of members and thus makes credit balances immediately available. In section 9 provision is made for the return on the same day of rejected items and if delay occurs, the member rejecting the items may not look to others for losses sustained.

2. *Clearing of Checks.* The Kassen-Verein enlarged in 1908 its clearing facilities in order to accommodate the business firms which could not qualify for membership in the more restricted *Abrechnungsstelle der Reichsbank*. Clearings in the latter are more expeditious primarily because the checks are cleared twice daily. However, the Kassen-Verein

performs an important function by clearing checks for its members.

The check-clearing function of the Kassen-Verein is an outgrowth of the provision contained in the rules and regulations for the clearing of invoices, that checks drawn on the Reichsbank and other banks will be credited to the account of members, subject to collection. Not until October 23, 1924, did the Kassen-Verein issue special rules pertaining to the clearing of such checks.

Under the new arrangement the checks drawn on members of the agreement or on members of the *Abrechnungsstelle* are received for credit until 11 o'clock daily, with the exception of Saturday, when they are received until 10 o'clock. Checks drawn on the Reichsbank giro account are received until 1 o'clock on week days and 12 on Saturdays. From time to time, a list of member firms is published for the convenience and guidance of members. Any member may have his name removed from the list at any time and the name of a member committing any irregularity may be removed.

The checks presented by members are credited to the giro accounts, but subject to collection. Should the depositor issue a transfer order against the uncollected checks, the Bank is under no obligation to make payment. In the event that the depositor's balance in the Kassen-Verein giro account is insufficient to meet the debit charges, the deficiency must be provided for before 1 o'clock. Any rejected checks must be returned to the Kassen-Verein not later than 1 o'clock, otherwise, they are regarded as paid and cannot be returned thereafter. If the deficit has not been provided for in the allotted time, or if the amount of the returned items surpasses the credit balance of the submitting firm, the Bank reserves the right to regulate the account in some other way on the afternoon of the same day. All checks drawn on

members are charged to their Kassen-Verein giro accounts and unpaid checks are returned to the depositing firm in the clearings the next morning.¹

HYPOTHEKENABRECHNUNGSSTELLE (MORTGAGE
BANK CLEARING HOUSE)

This clearing house, organized by the Reichsbank in 1909 with 33 members, clears both local and out-of-town transactions of mortgage banks. It is, therefore, in contrast to the other clearing houses of the Reichsbank, national in character. Membership comprises various types of institutions investing or dealing in mortgage bonds; namely, mortgage banks, credit banks, insurance companies, foundations, savings banks, and municipal mortgage banks. Clearings are made only on the first of January, April, July, and October, because on these dates the volume is enormous, whereas on all other dates the volume is not large enough to necessitate clearings. After the balances payable are ascertained settlement is made through the Reichsbank giro account in the same manner as *Abrechnungsstelle* balances. If the documents have been investigated prior to the first meeting, the debt may be acknowledged immediately and the resulting credit balance of out-of-town members with secondary branches of the Reichsbank made available for immediate use. Any member whose giro account credit balance is not sufficient to liquidate the claims of members and who does not provide for the deficiency without delay, will be expelled from membership.

Since the mortgage banks and insurance companies are large money lenders on the stock exchanges, the efficiency of the procedure of these mortgage-bank clearing houses is not

¹ "Rules of the Bank des Berliner Kassen-Vereins," published in Schneider-Dahleim, *Usancen der Berliner Fonds-Borse*, edited by Kurt Hartung (Berlin, 1929), pp. 43-44.

only of interest to the institutions dealing in mortgage bonds, but is of far-reaching importance, especially because of the effect on the renewal of stock exchange time money.¹

THE DEUTSCHE GIRO-ZENTRALVERBAND (GIRO AND CLEARING ASSOCIATION OF THE SAVING BANKS)

The savings banks in Germany, which are mostly owned by the municipalities and other public bodies, have a transfer and clearing organization of their own, of comparatively recent origin. Until about 1900, there was scarcely any co-operation among the various savings banks. If a depositor changed his domicile he withdrew his savings deposits in currency which he deposited with some other savings bank. This awkward procedure was remedied by the banks entering into agreement to transfer among themselves. The new arrangement was soon more or less generally adopted.² The real stimulus, however, for a central organization was the Federal Check Act of 1908, which gave, under certain restrictions, the right to savings banks to accept deposits subject to check and accordingly also to issue check books (*passive Scheckfähigkeit*) to this class of depositors.

In the event of a local necessity, the savings banks may, with the consent of the Prefect of the Province (*Oberpräsidenten*), engage in a regular deposit business.³ They act as fiscal agents for the municipalities in their respective districts; among other services they manage the debt service for municipal bonds.

Although the scope of activities of the savings banks was greatly enlarged by the Check Act of 1908, and the necessity of a central organization became obvious soon thereafter, it was not until 1917, that the *Deutsche Giro-Zentralverband*

¹ Leitner, *op. cit.*, pp. 226-227.

² Hoffmann-Freiburg, "Sparkassen," *Handwörterbuch der Staatswissenschaften*, 4th ed. (Jena, 1926), vol. vii, p. 678.

³ Heilfron, *op. cit.*, p. 59.

was organized in Berlin. It now embraces fifteen district associations with a membership of more than 3,000 cities, towns and municipal districts comprising more than 90 per cent of the population of Germany.¹

The central organization performs the same general functions for the district organizations that they in turn perform for their own districts, namely, facilitating transfers and arranging credits between savings banks and municipalities. The first of these organizations, called *Kommunale Giroverbände*, was established in 1908, in Saxony, but in 1912, similar institutions were organized in all the other sections of Germany.

All transfers from one savings bank to another, located in two different districts, pass first, through the district association of the payer's savings bank and then, to the *Deutsche Giro-Zentralverband* which, in turn, sends the order to the payee's savings bank through its district association. No transfer is made directly between the fifteen district associations. The central organization clears inter-district transfers, and, in like manner, the district associations clear intra-district transfers.²

The bank of the central association, the *Deutsche Girozentrale-Deutsche Kommunalbank*, located in Berlin, has a share capital of about 40 million Reichsmarks and resources approximating one billion Reichsmarks.³ A considerable portion of the deposits represents funds of the municipalities placed with the bank by the various savings banks. This institution plays an important role in the money market. Its capital stock is owned by the district associations whose stock is owned by the various member municipalities.

¹ *Moody's Manual of Investments: Banks and Insurance Companies* (New York, 1928), p. 2476.

² Schmidt, *op. cit.*, pp. 95-97.

³ *The Bankers Almanac and Year Book for 1929-1930* (London), p. 1342.

Savings banks, municipal banks, district organizations of savings banks and *Landesbanken*, affiliated with the organization of which the *Deutsche Girozentrale-Deutsche Kommunalbank* is the head, make, in general, no charge for checks drawn on any of the bank-offices within Germany, provided the check is submitted for collection by a customer. This practice is in conformity with the principles of other types of German banks. Also, no charge is made if the check is submitted to any of the affiliated institutions by a non-depositor, provided it is drawn on one of the associated banks. The same principle is applied by the *Grossbanken* for checks drawn on their branches.

Usually, the affiliates of the *Deutsche Girozentrale-Deutsche Kommunalbank* impose a small charge for the collection of checks drawn by non-customers on banks not affiliated with the system. A small fee is charged for the transfer of securities from one account to another, but the amount of the charges differs widely, depending in the main on the type of customer.¹

SUMMARY

There have been developed in Germany two distinct methods of payment without the employment of currency, namely, by check and by giro. The Reichsbank prefers the giro method of payment, whereas the other banks give preference to payment by check. Which system is preferable is problematical. In certain instances, usually when large sums are involved, the check system is more desirable, but in other cases, specially for small sums, the giro system is more economical.

A decided advantage of the giro method is the speed with which payment is effected. Delay occurs with check pay-

¹ Letter to the author from the *Deutsche Girozentrale-Deutsche Kommunalbank* dated January 29, 1930.

ment as it is necessary, first, to send the check to the payee, then, by him to his bank, thence, to the payer's bank to check against his account and finally as a cancelled voucher to the payer. The payee usually may not issue checks against such deposits until the items have been collected or the lapse of a designated period of time. From the viewpoint of the time element, specially when transfer is between distant cities, the giro system is superior to the check system. When a third institution is introduced in the transfer process the giro loses, to a large degree, the time-saving advantage.

A nation-wide organization utilized by a great number is essential to the successful operation of the giro system—government institutions only, with competition eliminated, command sufficient confidence for universal acceptance.

As no interest is paid on giro deposits, large accounts are not attracted. Banks also discourage small checking accounts. Because of the failure to pay interest on giro accounts and the discouragement of small accounts by the banks, in practice, the check system is employed by large depositors and the giro by individuals of limited means. Banks, however, maintain substantial giro accounts with the Reichsbank. These accounts are necessary owing to the indispensability of the Reichsbank clearing facilities and the requirement that the settlements of balances be made through the Reichsbank giro account.

The Reichsbank, the Grossbanken and the Postal Check System have their own collection and transfer systems, which, under certain circumstances, cooperate. The collection and transfer mechanism of the Reichsbank is used alike by banks and private individuals. The Reichsbank is not exclusively a bank of banks, but serves, somewhat similar to the Bank of France, business enterprises and individuals.

Although the collection rates of the Reichsbank are moderate, neither banks nor individuals draw heavily on its col-

lection facilities for large items, owing primarily to the absence of interest payments on balances. The banks, especially the Grossbanken, regard the facilities of the Reichsbank as only supplementary to their own and whenever possible they prefer to employ the services of their branches and correspondent firms. Since the collection and transfer activities are reciprocal, the accounts largely offset each other making it unnecessary to carry large non-interest-bearing Reichsbank giro accounts, thus saving substantial amounts of interest. The clearing operations of the Postal Check System also utilize the facilities of the Reichsbank. Accounts for clearing purposes are maintained with it by the postal system.

It will be observed from Table VIII that the transfers by the Reichsbank giro account far exceed those by the Postal Check System and clearing houses.

TABLE VIII

COMPARATIVE TABLE OF TRANSFERS IN CLEARING HOUSES, REICHSBANK-GIRO, AND POSTAL CHECK BUREAU¹
(Billions Reichsmarks)

Year	Clearing Houses		Reichsbank-Giro		Postal Check System	
	Amount	Average per day	Amount	Average per day	Amount	Average per day
1929	126	0.42	750	2.46	150	0.49
1928	121	0.39	694	2.27	145	0.47
1927	104	0.34	628	2.06	136	0.44
1926	83	0.27	539	1.76	114	0.37
1925	63	0.20	472	1.55	110	0.36
1924	36	0.12	433	1.42	78	0.25
1913	73	0.24	379	1.24	41	0.13

¹ *Abrechnungsstellen, loc. cit. (1929), p. 5.*

In addition to the institutional clearings of the Reichsbank and its branches, the Grossbanken and their branches and the Postal Check System, there are in Germany various clearing houses which are engaged primarily in the clearing of checks, but which also in many instances clear drafts. Foremost among such clearing institutions are the *Abrechnungsstellen* (clearing houses) and the *Scheckaustausch-stelle* (country check clearing office), both classes of which are operated by the Reichsbank and its various branches. Although the volume of these clearing houses is large, the number of members is small since membership is restricted to banks of the highest credit standing. Another institution of importance is the *Berliner Eilavis-Verband* which was organized by members of the *Abrechnungsstelle* within the last decade to expedite Berlin inter-concern transfers. The *Kassen-Verein* organizations in the various cities, comprising practically all stock-exchange members, engage primarily in clearing security transactions. Some items not eligible for clearing for members by the *Abrechnungsstelle* and also items of non-members are cleared through the *Kassen-Verein*.

The mortgage banks also have their own clearing house in the *Hypotheken-Abrechnungsstelle* of the Reichsbank. Owing to the peculiar nature of mortgage banking, this clearing house is utilized only four times a year, namely, quarterly, beginning with the first quarter of the year when in striking contrast to other times, the volume of business is large. The clearing service rendered is of great importance, beyond the benefits to the mortgage banks themselves. Even the savings banks clear and transfer through the *Giro-Verbande* with the *Deutsche Girozentrale-Deutsche Kommunalbank* in Berlin serving as the central organization. The credit associations have a similar system.

It should be clearly borne in mind that all clearing houses

not dealing with intra-concern clearings, but serving a certain clearing clientele, in particular, the *Abrechnungsstellen*, *Scheckaustauschstellen* and *Kassen-Verein*, do only clearings of a local character. The only exception to the local character of clearing operations is the *Hypotheken-Abrechnungsstelle* which operates on a nation-wide basis.

The complexity of the German methods of effecting payments without the use of currency is in striking contrast to the simplicity of the American, English, and Canadian systems, where the check predominates. In both England and Germany the central banks are more or less the nuclei of the clearing and collection systems, whereas in Canada, as will be observed in the following chapter, there is no central institution, hence different clearing methods were adopted.

The Canadian procedure was adapted to local conditions, but in some respects it was influenced by the Scottish system. The clearance of bank notes is peculiarly characteristic of these countries; the general banking laws are similar; in both there are few banks with many branches; and in neither is there a central bank, although the services of the Bank of England are employed by the banks of Scotland. Canadian banking was influenced by Scotland more than by England. American banking seems to have exerted a greater influence than that of the mother country. Similar geographical conditions obtained; in both, pioneer development required banking service as a vanguard to economic expansion, despite its immediate unprofitableness. Our experience pointed out dangers to be avoided. Canadian tendency toward banking concentration was early manifest, yet at no time did there exist a central institution similar to the Bank of England and the Reichsbank. Branch banking, so familiar to the Scotch, English and French immigrants, seemed the logical thing. Thus there emerged a comparatively few large institutions with branches situated in all

parts of the Dominion. Control was vested in the Dominion Parliament, but need of a central coordinating body was early apparent. Out of this need there was organized the Canadian Bankers' Association endowed with general supervisory power. This Association formulated rules and regulations not only of general banking conduct but also of clearing procedure, to the consideration of which the next chapter is devoted.

CHAPTER IV

CLEARINGS AND COLLECTIONS IN CANADA

GENERAL

MANY of the banking problems confronting Canadian bankers resemble those in the United States. The small towns in sparsely populated areas require banking facilities although their requirements are frequently insufficient to warrant the establishment of an independent self-supporting bank. To provide satisfactory banking accommodations over extended areas of the dimensions of the United States and Canada there have been developed too essentially different systems of banking; that in the former with its many small institutions organized under rather liberal banking laws known as the free banking system, and that in the latter with a few large institutions operating many branches, known as the independent-branch banking system.

The Canadian chartered bank is a bank of branches, not a bank with branches. The bank, technically known as the head office, neither takes deposits nor lends money. The business is conducted by the branches, which enjoy considerable independence, but are subject to the control of the head office.¹

The present Canadian law prevents the organization of new banks unless there is need for them and they are spon-

¹ Joseph French Johnson, *The Canadian Banking System*, Nat. Mon. Com. Pubs., 61st Cong., 2nd Sess., Sen. Doc. No. 583, Wash., D. C., 1910, p. 18.

sored by responsible persons experienced in the banking business. To guard against financial irresponsibility, the bank must have *bona fide* subscriptions of at least \$500,000 of capital stock of which \$250,000 must be paid in before it begins business. When once established the chartered bank may open branches without restriction at any place or places in the Dominion. The eleven chartered banks with their 4069 domestic branches (Dec. 31, 1929) and 186 branches or agencies in other countries transact all the banking business in Canada.

The most striking feature of the Canadian independent branch banking system is not the number of branches, but the large area over which they are spread and the great diversification of banking business enjoyed.

The head offices of all the chartered banks are situated in either Montreal or Toronto with the exception of the Weyburn Security Bank and the Bank of Nova Scotia. The latter has its general manager's office in Toronto.¹ Thus all save one are located in the two large financial centers of Canada.

It is obvious that the banking system comprising the eleven chartered banks housed in the financial centers with more than four thousand branches distributed throughout the Dominion would be extremely cumbersome unless effective means of clearings and collections were established.

The bankers have devised a system in many respects peculiar to Canada. They have adapted the clearing principle to their unique system which gives them an efficient clearing and collection mechanism. The great territory comprising their field of operations presented difficulties quite different from those encountered in England and Germany with their

¹ H. Parker Willis and B. H. Beckhart, *Foreign Banking Systems* (New York, 1929), p. 324.

concentrated areas, but in this respect similar to the United States. The great difference in the Canadian and American banking systems has necessitated the organization of two distinct clearing and collection systems.

COLLECTION OF COUNTRY ITEMS

The collection service performed by banks is great indeed when compared with the trouble and expense required of each business man if he should attempt to maintain collection agencies in every town from which he received checks. Collection items consist of checks and other demand instruments which the depositor's bank is not willing to credit to his account until collected, and also time obligations requiring special attention.

The Canadian system with a few large banks and a net of branches is admirably organized for the collection of checks and drafts. If the bank has a branch in the city of the obligor it is a simple matter to forward the item for direct presentation or clear it through the local clearings. Drafts are readily presented for collection under such circumstances. If there is no branch of the collecting bank in the city of the obligor, the item will be delivered to one of the other chartered banks having a branch at that point. Reciprocal arrangements among the banks accrue to the advantage of all. Small collection charges are imposed in most instances even though a bank may collect through its own branches. If the items are payable by a member of the clearing house within the city they are collected through the clearing machinery, payment entering into the clearing balances of the member banks concerned.

CLEARING HOUSE

The Canadian Bankers' Association has supervision over all clearing houses by virtue of legislative enactment (63 and

64 Vict. chap. 93, 1900). The Association prescribes the rules and regulations governing not only the existing clearing houses but also any which may be established. Weekly, monthly and yearly reports are submitted to the secretary-treasurer of the Association.

"The chartered banks doing business in any city or town, or such of them as may desire to do so, may form themselves into a clearing house. The Montreal City and District Savings Bank, located in Montreal, and La Caisse d'Economie de Notre Dame de Quebec, located in Quebec, may be admitted to the *privileges* of the clearing house in their respective cities."¹ In 1929, the St. Peter and St. James Streets Branch of the Bank of Montreal was granted the privileges of the Montreal Clearing House without membership.² Membership in the various clearing houses throughout Canada and Newfoundland, with the foregoing exceptions, is confined to the eleven chartered banks and their branches. "The Assistant Receiver-General of the Dominion of Canada, located at any clearing house point, may be admitted to privileges of the clearing house, but he shall have no voice in its management."³

OBJECTS OF CLEARING HOUSES

The objects of the Clearing House shall be the facilitating at one place and at one time of the daily exchange between the several members, the settlement of the balances resulting from such exchange and the promotion of the interests of the members and the maintenance of conservative banking through wise and intelligent cooperation.⁴

¹ The Canadian Bankers' Association, *Rules and Regulations, Clearing Houses for Banks* (March, 1928), section 1(a). Italics are the author's. Hereafter cited, *Rules and Regulations*.

² Personal interview with Mr. A. W. Ridout, Manager, Montreal Clearing House.

³ *Rules and Regulations, loc. cit., sec. 1(c)*.

⁴ *Ibid., sec. 2(a)*.

The objects of the clearing houses are similar to those for which clearing houses were established in the United States.¹ In actual practice, however, there have been many functions performed by such institutions in the United States, such as the issuance of clearing-house loan certificates and checks, extending loans to the government, lending support to weak members, fixing rates of exchange, and similar practices which were foreign to the stated purposes. The peculiar nature of the American banking system necessitated the inauguration of various measures to supplement defective currency and banking systems. Canada with her few large banks and many branches, established under rigid restrictions, and an elastic currency system designed to meet the varying needs of business, did not experience the great inconvenience and financial disasters characteristic of American banking prior to the establishment of the Federal Reserve System.

CLEARING BANK

The absence of a central bank in Canada precludes the possibility of adopting the system of settlement used in England. There has been some agitation for the establishment of a central bank to perform the function of a clearing bank, but the need for such a system is questionable under prevailing conditions as the benefits are now being enjoyed without the expense incident to a central banking system. Through the appointment of a clearing bank for each clearing house

¹ For a comprehensive description of the functions and procedure of clearing houses the reader's attention is called to Walter Earl Spahr, *The Clearing and Collection of Checks* (New York, 1926), chs. 5 and 10. Dr. Spahr has described the New York Clearing House and its activities with such detail that it is unnecessary to do more than point out the general characteristics of the clearing house system as peculiar to Canada—the general principles in all countries being virtually the same. See also James G. Cannon, *Clearing Houses, Their History, Methods and Administration* (New York, 1900), especially ch. xviii.

and the designation of a central trustee to serve as the final clearing agency the Canadian Bankers' Association has effected a satisfactory solution of the problem of bank settlements.

The Association devised a method of settling balances which was adapted to the needs of their banking system. Section 10 provides that,¹

The Board of Management shall arrange with a member to act as clearing bank for the receipt and disbursement of balances due by and to the various members, and in such capacity such member shall be a Trustee for the Associated members in respect of all balances so received. The clearing bank shall be responsible only for the proper distribution of the balances received amongst the creditor members on the presentation of the clearing house certificates properly discharged.

The clearing bank is also required each morning to furnish the manager of the clearing house with the minimum rate of exchange for bills and notes, drawn in sterling, payable at the current rate of exchange, who in turn advises the members.²

PAYMENT OF BALANCES

Balances may be paid either in legal tender or drafts. No credit balances are paid by the clearing-house manager until all debit balances have been settled. When money is used for settlement legal tender notes only of large denomination are acceptable.³ Should any settlement draft given to the clearing bank be returned unpaid, the clearing bank must notify all the other members of the default. The amount of the unpaid draft must be repaid proportionately to the clear-

¹ *Rules and Regulation, loc. cit.*, sec. 10a.

² *Ibid.*, sec. 10b.

³ *Ibid.*, p. 5.

ing bank by the members of the clearing house whose clearings were against the defaulting bank. The clearing bank is liable as trustee only for moneys actually received.

CLEARING-HOUSE TRANSACTIONS

There were only three clearing houses in Western Canada in 1900, situated at Winnipeg, Vancouver and Victoria, out of a total of eight in the Dominion, but by 1910 three more were added to the list, increasing the number to six in the West and the amount of clearings from \$200,000,000 in 1900 to \$1,760,000,000 in 1910.¹ By 1910 the number of clearing houses in Canada was increased to seventeen. Since then the number of clearing houses and the volume of clearings show a wholesome growth. At the end of 1929 there were thirty-two clearing houses situated in all the larger cities of Canada and Newfoundland. In that year the volume of clearings exceeded \$25,105,000,000 as compared with \$6,115,000,000 in 1910 and \$20,232,000,000 in 1920.²

In the case of the clearing houses, with the exception of those in the chief city of each province (Montreal, Toronto, Winnipeg and Vancouver), settlement is made by clearing house adjustments by way of settlement drafts drawn on the clearing house center for that particular district. This settlement is cleared by the receiving bank of the main center on which it is drawn. It will be observed that settlement is made by draft or check, in contrast to settlement through the Clearing Fund by mere bookkeeping transactions, as practiced in the central clearing. Settlement made by these minor clearing houses is not made until the following day, whereas in the case of the four large centers settlement is

¹ Victor Ross, *A History of the Canadian Bank of Commerce* (Toronto, vol. i, 1920; vol. ii, 1922), vol. ii, p. 207.

² *Commercial and Financial Chronicle*, vol. xciv, p. 167; vol. cxxviii, p. 170; vol. cxxx, p. 356.

made the same day, as, in the former case, the settlement draft is in transit, while, in the latter instance, the settlement is authorized by telegraph.

For example, if the Hamilton Branch of the Canadian Bank of Commerce is up (favorable balance) by \$200,000, the Canadian Bank of Commerce with its main office situated in Toronto would not get settlement in "legals" until the following day. The settlement draft mailed by the Hamilton Branch would not arrive in time to be included in the day's clearings in Toronto and so would be cleared the following morning.

CANADIAN BANK CLEARINGS AN UNSATISFACTORY
BUSINESS BAROMETER

Inasmuch as only inter-bank transactions are cleared the volume may not be regarded as a satisfactory barometer of business conditions. Intra-bank clearings comprise a large volume, but are not reported in the clearing house totals as they occur among the branches and head office of each bank. Amalgamations have reduced the number of chartered banks, which also vitiates a comparative study of clearings. Despite the diminishing number of banks there has been a wholesome increase in the volume of clearings. No valid comparison of clearing transactions can be made between Canada and the United States. In Canada, bank notes constitute a rather large percentage of the total clearings, whereas in the United States bank notes are not cleared.¹ There is also considerably less intra-bank clearing as the branches in the United States are comparatively few.

Bank debits, that is, issued checks charged by the banks against depositors' accounts, are now being reported as they reveal a more accurate picture of business. They show an increase of 66 per cent in 1929 over 1925 as compared with

¹ *Infra*, p. 108.

a 49.8 per cent increase in the volume of clearings. Bank debits provide a comparable record, but bank clearings, owing to amalgamations, are not comparable.¹

CENTRAL CLEARING FUND

In order to effect settlements between the members at the four large clearing centers of Montreal, Toronto, Winnipeg and Vancouver, a fund is maintained in Montreal through the deposit with a special Trustee, at present the Royal Trust Company, which is closely affiliated with the Bank of Montreal, of Dominion notes and gold "deemed sufficient by the member to meet the probable adverse balance which the member will be called upon to pay from time to time."²

Upon settlement of balances between members, as declared by the clearing house manager, the manager at Toronto, Winnipeg and Vancouver, respectively, furnishes the member selected in the respective districts by the Canadian Bankers' Association with a list of the balances. The members of the three clearing houses in Toronto, Winnipeg and Vancouver, give the three chosen members written instructions for communication to the Trustee in Montreal authorizing him to debit or credit their respective accounts. When the Royal Trust Company, as Trustee, receives telegrams from the selected members in the three clearing districts, namely, Toronto, Winnipeg and Vancouver, it makes the appropriate debit or credit entry in each bank's account in the Central Clearing Fund, provided the authorization agrees with the balances furnished by the clearing-house manager of each district. Should any bank's daily adverse balance result in a general debit balance it is notified immediately, that is, at twelve o'clock noon, by the Trustee and must within an hour deposit legal tender to cover. If any member has a credit

¹ *Canada Year Book, loc. cit.*, 1929, pp. 864-865.

² *Rules and Regulations, loc. cit.*, sec. 12a.

balance it may be withdrawn. An amount sufficient to meet debit balances must be maintained.

Unlike the method pursued in the three other districts, the clearing house manager in Montreal gives the list of balances to the Trustee instead of giving it to a selected member. Upon confirmation of the respective balances by each member the Trustee makes the proper entries. Each day the Trustee furnishes the Montreal branch of each member bank with the day's entries and the opening and closing balances.¹

The usual practice among banks is to clear through local clearing houses, when possible, checks drawn on banks in places where the depositing bank has no branch. If the drawee bank has no branch in the town where the check is deposited it is customary for the bank receiving the check on deposit to forward it to one of its own central offices where it in turn clears the items to the bank drawn upon. If the collection is a large one, that is, usually in excess of \$50 for Canadian Bank of Commerce and \$200 for the Bank of Montreal, it is ordinarily mailed directly to the drawee bank so as to save interest.

Commission is paid for collection service according to agreement. The amount of commission varies between different banks according to their reciprocal benefits, keeping in mind the relative number of branches and the proportion of these branches at non-competitive points. It is a question of value received. However, the banks cooperate in every way possible through the Canadian Bankers' Association, of which they all are members.²

In a general way, the method of effecting final settlement

¹ *Rules and Regulations, loc. cit., sec. 12, passim.*

² Personal interviews with Mr. G. C. Pratt, Accountant, Bank of Montreal, Montreal, Canada, now with Barclays Bank (Canada), and Mr. A. W. Campbell, Office Supervisor, Canadian Bank of Commerce, Toronto, Canada.

of balances between members of the Association is similar to that adopted in the United States under the Gold Settlement Fund. Unnecessary transfer of funds is avoided as a mere bookkeeping entry serves to transfer title to the Dominion notes deposited with the Trustee without their physical transfer.

Two banks with private wires to Montreal are selected by the Association to transmit the clearing advice from Toronto, Winnipeg and Vancouver. These two banks, namely, the Bank of Montreal and the Royal Bank of Canada, in each of the three clearing districts alternate the duties quarterly. They are paid a daily fee of \$10 to cover transmission costs and other incidental expenses.

CLEARING ITEMS

All items except bank notes presented for clearing must be enclosed in envelopes sealed with wax. Bank notes are presented in sealed linen or canvas bags and are cleared in the same manner and time as the other clearing items and the amount is included in the general balance. Items returned or in dispute, unaccepted and unmarked bills of exchange (with the exception of checks), unstamped and illegally endorsed items, bonds and coupons, branch settlement drafts payable to, and dishonored checks and bills of exchange intended for, a suburban or city branch of any other member, cannot be cleared. All such items are presented over the counter to the debtor member.

With the foregoing exceptions any item specially agreed upon by any member, until contrary notice is given, may be presented for clearing.¹ Checks of all kinds and, when accepted by the paying bank, drafts, notes and bills of exchange are cleared in Canadian clearing houses. Bills of ex-

¹ *Rules and Regulations, loc. cit.*, secs. 24, 25.

change are accepted by the drawee bank and then passed through the clearing house. In contrast to the United States, bank notes are cleared in Canada. It is necessary for issuing banks to provide for redemption of their notes in convenient centers throughout the country. Bank notes received by the branches in the clearing area are assembled, sorted and dispatched to the clearing branch in the designated center where they go through the branch's regular daily clearings. This daily testing of bank notes at the clearing houses begets a high degree of confidence in them.

Banks receive in their customers' deposits checks and bank notes payable at other banks. Those payable by banks in town are presented by runners if there is no local clearing house. In the large cities practically every bank has a branch or redemption agent to facilitate the daily clearance and redemption of its notes. The amount of bank notes cleared each day constitutes a rather large percentage of total clearings.

CLEARINGS FOR NON-MEMBERS

Members may not clear for non-members unless recommended by the Board of Management and approved by the executive council of the Association. Even the change of clearing agent for a non-member from one member to another must be approved. Suitable fees, in Montreal \$150 annually, must be paid to the Association by non-members who clear through members.¹ The present arrangement of clearing for non-members at the Montreal Clearing House is:²

¹ *Rules and Regulations, loc. cit.*, sec. 30; personal interview with A. W. Ridout, Manager, Montreal Clearing House.

² Interview with A. W. Ridout.

CLEARING FOR NON-MEMBERS

Clearing Member Bank	Non-member Bank
No. 4. Bank of Toronto.	Crown Trust Co.
No. 6. La Banque Canadienne Nationale.	La Caisse d' Economie de Notre Dame de Quebec.
Ditto Ditto	La Caisse Populaire de l'Immaculée-Conception.
Ditto Ditto	La Caisse Populaire de Ste-Cécile.
Ditto Ditto	La Caisse Populaire de St. Irénée.
No. 10. Canadian Bank of Commerce.	National Trust Co., Montreal.

THE MONTREAL CLEARING HOUSE

The Montreal Clearing House,¹ like all other clearing houses in Canada, is subject to the rules and regulations of the Canadian Bankers' Association. Each clearing house has its own rules and regulations, but they must not conflict with those of the Association. Consequently a description of representative clearing-house procedure will suffice.

The Montreal Clearing House consists of the eleven chartered banks, the Montreal City and District Savings Bank and the St. Peter and St. James Streets Branch of the Bank of Montreal. The Assistant Receiver-General of the Dominion of Canada is admitted to the privileges of the clearing house but has no voice in its management.

Management of The Montreal Clearing House is vested in a board of seven members who are representatives of as many member banks. The Chairman and Vice-Chairman are chosen by the Board of Management. Annual meetings for the election of the Board and to hear the yearly report are held the second Wednesday in January. A quorum at both the general and special meetings consist of a majority of all members.

¹ *Constitution Rules and Regulation of the Montreal Clearing House as Revised and Amended, March, 1927.*

There are two clearings each day. Prior to the first clearing, that is, at 8:50 a. m. every week day and 8:30 on Saturday, parcels containing checks only are exchanged between the banks at the Clearing House. The first session of clearings begins promptly at 9:30 a. m. At this clearing all eligible items are cleared. On Saturdays, bank notes are not cleared. Should there occur any errors in cash items they must be claimed before 3 o'clock p. m., and other items not later than 1 o'clock on week days and 12 o'clock on Saturdays. The second clearing, for returned items only, is held at 12:30 p. m. except on Saturdays, when the time is 11:45 a. m. There is some variation in the time for clearing among the different clearing houses, but generally those further west, especially on Saturdays, meet earlier in the morning because of the difference in time and of the necessity of reporting daily clearing-house balances to the central clearing bank in Montreal.

The second or afternoon clearing in Montreal follows the same procedure as the morning clearing. The items returned are presented in closed envelopes. If the recipient of any item through the second clearing objects to receiving it, it may upon request receive from the depositing bank a Clearing House receipt or legal tender therefor. Settlement is made through the Clearing House by the issuance of a credit slip to the bank with a credit balance, which is presented the following morning to the clearing bank just as any other check is cleared. The clearing bank charges each bank owing money to the Clearing House, on authority of the Manager, as evidenced by debit slips showing the amount due by each debtor bank.

Negotiable paper cleared, except bank notes, is stamped by the depositing bank which shows the name of the bank and the dates of receipt and clearing. Cash or bank notes are enclosed in bags properly sealed with lead. To the bags

are attached perforated card tags in duplicate, on which are the names of the sender and receiver and the total amount of the contents. One half of the tag is detached by the clerk of the Clearing House for his record and the other half remains attached as a record from the sender to the receiver.

Checks received through the Clearing House by a bank drawn upon its city branches—except the branches designated as mailing branches—must be presented at the branch on which they are drawn the same day, and if dishonored must be returned to the sending bank at the second clearing or by messenger not later than three o'clock the following banking day.

A committee, consisting of the Bank of Montreal, Royal Bank of Canada and The Canadian Bank of Commerce, fixes the rates of sterling exchange for purchase and sale of sterling bills of exchange. These rates form the basis of all sterling quotations for the day which must be maintained by all the members other than to their own customers. The Exchange Committee also fixes each morning a fair buying and selling rate between banks for United States exchange. The members of the Clearing House agree not to quote a customer of another bank a closer buying or selling rate than one-eighth of one per cent below or above the fixed rate, as the case may be, on items of \$10,000 or less and one-sixteenth of one per cent on items for more than \$10,000.

The Montreal Clearing House requires all members to charge ten cents per item, irrespective of amount, on all items received for collection from any bank in Montreal. The rates arranged between the head offices of the interested banks govern for items received by the collecting branch direct from an out-of-town bank, or remitted for to an out-of-town bank.

PROCEDURE OF TORONTO CLEARING HOUSE ¹

As in Montreal, there are two daily clearings in Toronto. The main clearing, consisting of an interchange of checks and cash between the banks, takes place at 9:30 a. m., while the second clearing at 1:30 looks after the return of all unpaid items to the bank from whom received.

Special forms are prepared for the clearings.

The first clearing

The clearings from each bank are delivered at the Clearing House at 9:30 a. m. with a recapitulation or delivery sheet, Form No. 1, showing the total checks, including cash, cleared to each bank, together with Form No. 2 showing the total amount cleared, which is in reality a debit against the Clearing House and a credit to the sending bank. Form No. 2 is handed to the Clearing House Manager immediately upon arrival and the amount shown thereon, when received from each member bank, is entered on Form No. 3 for the credit of the lodging or sending bank. Form No. 1 contains provision for receipt which is signed by the clerk of each bank receiving clearing items.

Each member bank is allowed two associate members, that is, they have the privilege of placing their two largest city branches, in addition to the main office, as distinct members in the Clearing House, which thereby receive their checks sooner than would be the case if they were routed through the main office. It is apparent that considerable work is saved by the main offices of all the banks through not having to handle the checks drawn on the two branch offices.

The associate member branches do not enter into any settlement between the individual banks, as the net debit or credit is handled by settlement slip on the main office.

¹Personal interview with Mr. A. W. Campbell, Toronto.

CLEARINGS AND COLLECTIONS

Forms 3A provide for the net result of the clearing for the Market and King & Jordan branches of the Canadian Bank of Commerce, the difference of which is charged or credited to the main office.

**TORONTO CLEARING HOUSE
CANADIAN BANK OF COMMERCE**

DELIVERY STATEMENT Toronto.....19..

Bank	Cr. Amount	Signature
Bank of Montreal.....		
Bank of Nova Scotia		
Bank of Toronto.....		
Royal Bank of Canada		
Dominion Bank		
Imperial Bank of Canada		
B. of M., King & Yonge		
B. of M., Bay St.		
Nova Scotia, Queen & Church...		
Nova Scotia, Queen & McCaul..		
Royal, Church St.....		
Royal, Yonge & Richmond		
Imperial, Bay St.....		
Imperial, Yonge & Queen		
Barclays Bank.....		

Form No. 1

TORONTO CLEARING HOUSE

\$.....

Toronto.....19..

Credit CANADIAN BANK OF COMMERCE

the sum of.....
.....

.....

Settling Clerk

Form No. 2

.....
 TORONTO CLEARING HOUSE PROOF.....19..

Banks	No.	Due to Clearing House	Received	Delivered	Due by Clearing House	No.
Montreal	1					1
Nova Scotia	2					2
Toronto	4					4
Commerce	10					10
Royal	11					11
Dominion	12					12
Imperial	17					17

Form No. 3

TORONTO CLEARING HOUSE

Toronto.....19..
 Debit COMMERCE—MARKET Amount Received \$.....
 Credit do. do. do. do. Delivered \$.....
 Balance Due.....Clearing House \$.....
Settling Clerk

Form No. 3A

TORONTO CLEARING HOUSE

Toronto.....19..
 Debit COMMERCE—KING & JORDAN Amount Received \$.....
 Credit do. do. do. do. Delivered \$.....
 Balance Due.....Clearing House \$.....
Settling Clerk

Form No. 3A

TORONTO CLEARING HOUSE

CANADIAN BANK OF COMMERCE

RECEIPT STATEMENT

Toronto..... 19..

Bank	Cr. Amount	
Bank of Montreal		
Bank of Nova Scotia.....		
Bank of Toronto		
Royal Bank of Canada.....		
The Dominion Bank.....		
Imperial Bank of Canada.....		
B. of M., King & Yonge		
B. of M., Bay St.....		
Nova Scotia, Queen & Church..		
Nova Scotia, Queen & McCaul..		
Commerce, King & Jordan ...		
Commerce, Market		
Royal, Church St.		
Royal, Yonge & Richmond ...		
Imperial, Bay St.....		
Imperial, Yonge & Queen.....		

Form No. 4

TORONTO CLEARING HOUSE

Toronto..... 19..

Debit	BANK OF COMMERCE	Amount Received \$.....
Credit	do. do. do. do.	Delivered \$.....
Balance Due.....	Clearing House	\$.....
		.....Settling Clerk

Form No. 5

CLEARINGS AND COLLECTIONS IN CANADA 117

CONFIRMATION OF CLEARING BALANCES

Toronto.....19..

TO THE BANK OF MONTREAL OR THE ROYAL BANK OF CANADA

The amount due to us in settlement of to-day's clearing is.....

.....

.....Dollars (\$)

Please instruct the Trustee in Montreal to credit our account with this amount,

THE CANADIAN BANK OF COMMERCE

.....

Manager

.....

Clearing House Manager

.....

Accountant

Form No. 6 (Black ink)

CONFIRMATION OF CLEARING BALANCES

Toronto.....19..

TO THE BANK OF MONTREAL OR THE ROYAL BANK OF CANADA

The amount due by us in settlement of to-day's clearing is.....

.....

.....Dollars (\$)

Please instruct the Trustee in Montreal to debit our account with this amount.

THE CANADIAN BANK OF COMMERCE

.....

Manager

.....

Clearing House Manager

.....

Accountant

Form No. 7 (Red ink)

The clerk completes Form No. 4 from the figures that he receives at the Clearing House of the amount of clearing drawn on his bank from the other clearing banks. The amounts are totaled and a difference struck between the total and that on Form No. 1, which shows whether the bank makes a gain or sustains a loss in the clearings for the day.

The clerk next prepares Form No. 5, showing the amount of clearings received and delivered and the net difference, and hands it to the Clearing House Manager, who approves the calculations. In the case of a gain in the clearing for the day, Form No. 6 (in black ink) is completed by the clerk, signed by the Clearing House Manager and returned to the main office. In the event of a debit in the clearing, Form No. 7 (in red ink) is prepared in a similar manner.

We are now at the stage when the exchange has been completed between the banks, and each bank is aware of its net position for the day. When the position has been verified and signed by the officials of the main office, Form No. 6 or 7, as the case may be, is delivered to the Bank of Montreal or Royal Bank of Canada who act alternately as agents for quarterly periods. When the agent has received from the Clearing House Manager a list of the balances due to or by each member and the other members of the Clearing House have given written authorization and instruction to be communicated to the Trustee to debit or credit their accounts in the Central Clearing Fund, as the case may be, the agent wires the Royal Trust Company in Montreal, as Trustee, stating the respective balances. The same procedure is followed in the other clearing districts of Vancouver, Winnipeg and Montreal (slightly different). When the Royal Trust Company has received the information from all four clearing districts, one adjusting entry only is required for each bank for the whole Dominion. The central settlement

is a decided advantage over the old system whereby settlement was made at all these points in legals.

The second clearing

The second clearing at 1:30 p. m., for the exchange of dishonored items, is handled in the same manner as the first clearing with the exception of the mode of settlement.

Form numbers, 1, 2, 3 (slightly changed), 4 and 5, as used in the first clearing, are used in this instance. If the amount of dishonored items returned by a bank is more than the amount of the items received, in other words, if the bank's net position is a gain, Form No. 7 (on blue paper) is completed and signed by the Clearing House Manager, retained by the bank and cleared to the bank acting as agent. If a loss is sustained in the second clearing, a form on yellow paper is completed and dealt with in the same manner as Form No. 7, except that it would be a charge against the bank and would be received in its clearing the next morning as a charge from the settling bank or agent.

Associate members attend the second clearing and the procedure followed is identical with that followed by the main offices.

INTRA-BANK CLEARINGS

It is asserted by advocates of branch banking that not only are economies effected in the clearing of intra-bank items, but also that the items are presented and reports dispatched more expeditiously. Under certain circumstances undoubtedly circuitous routing and other delays incident thereto are obviated, but the methods employed by the Federal Reserve System seem to be quite as satisfactory.

**METHODS OF BRANCH CLEARINGS BY THE BANK
OF MONTREAL**

There are two general classifications of branch clearings by the Bank of Montreal, namely, Head Office Clearings and District Clearings.¹ The main office in each of the following cities has been designated Central Office:

Calgary	London, Ont.	Saint John
Charlottetown	Montreal	Sudbury
Edmonton	Ottawa	Toronto
Fort William	Quebec	Vancouver
Halifax	Regina	Victoria
Lethbridge	Saskatoon	Winnipeg

The three clearing districts for the bank of Montreal are:

DISTRICT CLEARING CENTERS OF BANK OF MONTREAL

District	District Department at
Province of Quebec, Maritime Provinces, and Newfoundland.....	Head Office, Montreal.
Ontario.....	Toronto.
Manitoba, Saskatchewan, Alberta and British Columbia	Calgary.

¹ Interviews with Sir Frederick Williams-Taylor, then General Manager, now member of the Board of Directors and a Vice-President of Bank of Montreal; Mr. G. C. Pratt, then Accountant of Bank of Montreal, now with Barclays Bank (Canada), Montreal, and Mr. H. T. Mitchell, in charge of clearings, Head Office, Bank of Montreal.

Each of the foregoing districts has District Clearings to cover the items drawn on the branches of their respective districts, and the Head Office Clearings which comprise the items drawn on a branch of one district and deposited in a branch of another district. To illustrate: Suppose the Hull Branch of the Bank of Montreal, which is in the Montreal Clearing District, should receive on deposit a check drawn on one of the branches of the Bank of Montreal in Ottawa, which is on the opposite side of the Ottawa River from Hull but which is in the Toronto Clearing District. In such a case the Hull Branch would send the check direct to the drawee branch in Ottawa, provided the amount was large, but should the check be drawn for a small amount it would be sent to the main branch in Ottawa which would include the check in its city intra-bank clearings and then send it direct to the drawee branch. At the time it sent the check the Hull Branch would debit "Head Office Clearings" Account (Form No. 8). Upon receipt of the Cash List (which would include the check under discussion) the drawee branch would credit "Head Office Clearings" Account. It will be seen that the check would be presented almost immediately and directly for payment which would reduce the duration of the "float" to the minimum.

All entries for branch clearings between branches *not in the same District* are made through "Head Office Clearings" Accounts; for example, Peterboro in the Toronto District and Winnipeg in the Calgary District. All entries for branch clearings between branches *situated in the same District* are made through "District Clearings" Accounts. For example, entries for transactions between Montreal and Sherbrooke, both in the Montreal Clearing District, are made through their respective "District Clearings" Accounts.¹

¹ *Circular No. R. 168*, issued December 23, 1924, by the Bank of Montreal for the instruction of its staff.

Form L. 53a Sm.—9297

CASH ITEM LIST

Montreal Branch

BANK OF MONTREAL

At Debit of Branch 19 . .

Endorser	Inst.	Amount	

Form No. 9

Special forms known as "Credit Advice List" and "Debit Advice List" are used by the branch or head office in which the entries originate and are sent to the branch or head office concerned. The total of all checks received for the day on or for any particular branch is carried to "Branch Clearings." The total of the outgoing list is debited and the total of the incoming list is credited to District or Head Office Clearing Account, as the case may be.

Under the system adopted by the Bank of Montreal, checks drawn upon branches are listed on a Cash Item List, Form No. 9, which is made in duplicate. The only details given are the name of the depositor, which is represented by

"Sundry." When all Cash Item lists for the day have been prepared they are recapitulated under their respective classifications as District Clearings A to M and N to Z or Head Office Clearings A to M and N to Z and the total amount of each list entered in duplicate on the Branch Clearings Statement (Form No. 10) and charged to the Branch Clearings Account. That is, the amount is treated as a credit by the issuing branch and as a debit by the receiving branch.

Branch cash items of amounts less than \$500 are forwarded through Central offices if they are payable at points where the central offices have branches. Checks amounting to less than \$500, but which are payable at points where the central office has no branches, are forwarded to the Central Office on Sub Cash Item List (Form 11). The total of this sub-list is carried to the Central Office ordinary Cash Item List. A small deduction is made on the total of the list to reimburse the Central Office for commission which it must pay to the bank's correspondents. Particulars as called for in the various headings must be carefully entered on the sub cash list, as these particulars are not duplicated at the receiving office, the list being used for purposes of record.

In every small town where there are two or more banks having one branch only, but where there is no clearing house, the branches of the various banks carry accounts with each other. Items consisting of checks, bank notes and accepted bills of exchange are dispatched daily by runners. They carry pass books in which are entered by the ledger keeper of the receiving branch the total of the items received including the notes of its bank. The ledger keeper initials for the deposits received. The local branch manager may call for settlement in round numbers at his discretion. Periodic settlements are thus made, but the accounts are always settled in full on the fifteenth and on the last of each month. Settlements are made by drafts drawn on the large financial and

Form 539 3933

Cheques of less than \$500. drawn on points where there is no B. of M. Branch

SUB CASH ITEM LIST

BANK OF MONTREAL

..... Branch

To..... Branch

..... 19....

Drawer	Drawee Name of Bank and Town	Amount	Comm.	Inst.	Endorser

NOTE—Commission for Central Branch ($\frac{1}{5}$ of 1%) must be deducted from the total shown in the amount column, and also from the total of the Commission column before carrying into ordinary Cash List.

Form No. 11

clearing centers, such as Montreal, Toronto, Winnipeg, Calgary or Vancouver. In the smaller towns where the settlements are for smaller amounts, the branches make use more conveniently of their nearest clearing house. In the small villages of the Maritime Provinces settlement is often made by drafts on Halifax or St. John.

In the large financial centers intra-bank items are delivered to and collected from the branches by messengers who use motor cars or motorcycles. In Toronto, the Canadian Bank of Commerce employs three motorcycles for this pur-

pose and in Montreal, the Bank of Montreal uses two motor cars. In Montreal, where there are many branches, the two motor cars of the Bank of Montreal are used to deliver to its various branches the items received from the Clearing House, which clears at 9:30 a. m. and 12:30 p. m., and late in the afternoon to pick up clearing items on the various branches. In this manner checks received late in the afternoon, if for large amounts and within a restricted area, may be recorded against the drawer the same day, thus checking without delay the validity of the account. In any event all items will be presented the following day. This system also assures the prompt delivery and receipt of items enabling the Clearing Department of the main branch to handle them without delay and expediting the preparation of the items for clearing at 9:30 the following morning.

A branch may send inter-district branch items to its District Office which would forward them to the drawee branch, but if the amounts are large, usually in excess of from \$50 to \$200, they are sent direct to avoid unnecessary delay and thereby save interest. At times various branches send intra-bank collection items to the Head Office which debits them to the branch drawn upon, credits the sending branch and then forwards the items to the branch to be charged against the drawers' accounts. At the moment the customers' accounts are charged the chartered banks receive the benefit although it may require several days to report the collection to the sending branch. Under the Federal Reserve System, where time schedules have been adopted, several days may elapse before the funds become available to the sending bank. To a large degree, however, this difference in time has been eliminated through the Gold Settlement Fund which greatly facilitates the transferability of funds collected at remote points.

Branches throughout Canada facilitate the collections and

deposits of large business enterprises with branch offices in various sections of the country. Collections are deposited in the local branch but become immediately available at the Head Office. Telegraphic instructions to remote branches place the unlimited funds of the large banks at the disposal of big business no matter how far it may be removed from large centers where financial accommodations are usually present.

SIMPLICITY OF CLEARING MECHANISM

The Canadian currency system is simple yet adequate; its banking structure lacks complexity but has proved satisfactory; likewise its clearing mechanism effects the offsets of credit items in an expeditious manner and with little expense. The few large banks with many branches have continued to improve their clearing and collection systems until today they have an efficient organization. The eleven chartered banks have organized clearing houses in all the important cities of Canada where interbank items are cleared and settled with despatch. Intra-bank items are ordinarily sent to the drawee branches by the most direct routes. Settlements in either legal tender or book transfers make funds readily available and consequently minimize the deferred availability of collection items to customers.

Canada has no central bank, but the clearing functions performed by such institutions are provided for through the operations of the Central Clearing Fund deposited with the Trustee at Montreal. A system quite different in some respects from the Canadian methods is found in the United States. There the problems of clearing and collection are in some respects similar to the Canadian difficulties, while in other respects they are quite different. The small towns in sparsely populated areas require banking accommodations, yet the business is inadequate. Concentration of clearings

exemplified in England is quite impossible. Thousands of small banks present a decentralized system requiring a clearing and collection mechanism in some important respects different from the English, German, or Canadian systems.

Although the clearings and collections of Canada present similar difficulties to those encountered in the United States, owing to the wide territorial expanse, the banking systems are so different that the clearing and collection mechanisms show many important variations. It is interesting to observe the different methods employed in these two countries presenting similar geographical problems but having decidedly different banking systems. Neither country has a central bank but both have applied the clearing principle, and other machinery has been devised to supply the necessary central banking service.

The existing American system is the result of years of expensive experiment and general conflict of interest. Satisfactory local clearings were not introduced until 1854, more than eighty years after the introduction of offsets in London. Since that date, clearing houses have rapidly increased until the present number approximates 400. Clearings and collections of distant items were unsatisfactory until the introduction of the plan devised by the Federal Reserve Board, which was put in operation in 1916. Consideration of the method, which constitutes the burden of the next chapter, will reveal the great improvement. The Federal Reserve Board, through its supervision of the twelve Federal reserve banks and the general management of the clearing and collection procedure which is facilitated by the employment of the Gold Settlement Fund lodged with it at Washington, performs clearing service similar to that of central banks.

CHAPTER V

CLEARINGS AND COLLECTIONS IN THE UNITED STATES

PRIOR to the Federal Reserve Act, December 23, 1913, the methods of clearing and collection in the United States were both cumbersome and expensive. Seasonal requirements in different sections of the country created variable demands for banking facilities. At one season a community's exports greatly exceeded its imports only to reverse the flow of trade within the course of a few months. Banks found it necessary, therefore, to keep large deposits with each other to meet the requirements of their customers. As a natural consequence, there developed the bank correspondent system.

Banks received daily among their customers' deposits checks drawn not only on themselves, but on other local and distant banks. The checks drawn on local banks were collected by messenger or through the clearing house. Out-of-town items were either mailed direct to the drawee bank, a questionable practice from the legal point of view, or to another bank in the same city or in a neighboring city. If the banks were correspondents the collecting bank credited the account of the sending bank and either remitted by draft or retained the amount on deposit. The drawee banks usually charged what was known as collection and exchange charges, hence the depositors' bank was compelled either to absorb the charge or pass it on to its customers. In order to avoid exchange charges the checks were frequently sent on circuitous routes often entailing long delays in presentment, with consequent losses.

The difficulties encountered under the correspondent system forced Congress to devise means of improvement. Circuitous routing, pyramiding and decentralization of reserves, inelasticity of our currency and excessive collection and exchange charges, characteristic of the correspondent system, placed unbearable burdens upon business. To overcome the objections to the existing banking system and properly to coordinate the activities of the banks of the country, the Federal Reserve System was created. The Federal Reserve Act, as construed by the Federal Reserve Board, requires the Federal reserve banks to operate for the benefit of their member banks a clearing and collection system on a par remittance basis. Until the establishment of the Federal Reserve System no direct, scientific and economical method of collections and clearings of out-of-town checks had been inaugurated, because it was impossible to secure cooperation among the large number of banks competing for the reserve deposits of country banks. Banks can now collect out-of-town checks at actual cost and with promptness, through the agency of the Federal Reserve System, which is of great magnitude and unquestioned soundness. The unsatisfactory practices in handling country checks prior to the establishment of the Federal Reserve System have been summarized as follows:¹

- First:* Excessive exchange charges;
- Second:* Absorption of exchange charges by the collecting banks;
- Third:* Circuitous routing of checks to avoid exchange charges;

¹ C. R. McKay, "Federal Reserve Check Collection System," *The Chicago Banker*, vol. xlix (March 30, 1920), p. 9; for general discussion see H. Parker Willis and William H. Steiner, *Federal Reserve Banking Practice* (New York, 1926), chap. xx.

- Fourth:* The maintenance of reserve balances with banks for the sole purpose of getting items on which to charge exchange;
- Fifth:* The carrying of compensating balances with collecting banks solely for the purpose of obtaining par territory;
- Sixth:* Paying interest on uncollected funds;
- Seventh:* Paying checks drawn against uncollected funds;
- Eighth:* Padding of reserves with items in transit.

PROVISIONS OF THE FEDERAL RESERVE ACT

The establishment in detail of a national clearing and collection system to supplement, and in many instances to replace, the objectionable methods then existing imposed a most difficult task upon those charged with the responsibility. The authors of the Federal Reserve Act displayed wisdom in merely formulating the legal base for the organization of a national clearing and collection system, leaving the details to the Reserve Board to supply as experience dictated. The desirable features of the existing methods could then be recognized and incorporated in the nation-wide system.

Section 13 of the Federal Reserve Act provided that,

Any Federal reserve bank may receive from any of its member banks, and from the United States, deposits of current funds in lawful money, national-bank notes, Federal reserve notes, or checks, and drafts, payable upon presentation, and also, for collection, maturing notes and bills; or, solely for purposes of exchange or collection, may receive from other Federal reserve banks deposits of current funds in lawful money, national bank notes, or checks upon other Federal reserve banks, and checks and drafts, payable upon presentation within its district, and maturing notes and bills payable within its district; or, solely for the purposes of exchange or of collection, may receive from any nonmember bank or trust company deposits of current funds in lawful money, national-bank notes, Federal reserve

notes, checks and drafts payable upon presentation, or maturing notes and bills: *Provided*, such nonmember bank or trust company maintains with the Federal reserve bank of its district a balance sufficient to offset the items in transit held for its account by the Federal reserve bank.¹

It is evident that Section 13 is permissive and not mandatory, yet the Federal Reserve Board regarded the organization of "clearing functions as one of the most important responsibilities with which it was charged under the act, as well as one of its most difficult and intricate problems."² Inasmuch as the plan involved many changes in existing methods, the Board moved cautiously because of its desire to enlist the indispensable and harmonious cooperation of the banks. Technical skill was necessary in order to avoid unnecessary derangement of customary commercial and banking methods.

Section 13 prescribed the character of paper eligible for deposit and collection by Federal reserve banks as received from member banks and also from nonmembers provided they maintained adequate balances to cover transit items. It also permitted collection charges, not to exceed 10 cents per \$100, but *no charge could be made against the Federal reserve banks.*

Section 16 authorized intra- and inter-district clearings and collections. As shown by the following quotation from the Act, the Federal reserve banks were required to act as clearing houses for their respective members, and the Federal Reserve Board was to exercise the functions of a clearing house for the Federal reserve banks or designate one of them so to act. Items were also to be received on deposit *at par* from member banks or from Federal reserve banks.

¹ *The Federal Reserve Act*, as amended to May 29, 1928, p. 26. All citations are taken from the Act with amendments to the above date.

² *Annual Report of the Federal Reserve Board*, vol. i (1914), p. 19.

Every Federal reserve bank shall receive on deposit at par from member banks or from Federal reserve banks checks and drafts drawn upon any of its depositors, and when remitted by a Federal reserve bank, checks and drafts drawn by any depositor in any other Federal reserve bank or member bank upon funds to the credit of said depositor in said reserve bank or member bank. Nothing herein contained shall be construed as prohibiting a member bank from charging its actual expense incurred in collecting and remitting funds, or for exchange sold to its patrons. The Federal Reserve Board shall, by rule, fix the charges to be collected by the member banks from its patrons whose checks are cleared through the Federal reserve bank and the charge which may be imposed for the service of clearing or collection rendered by the Federal reserve bank.

The Federal Reserve Board shall make and promulgate from time to time regulations governing the transfer of funds and charges therefor among Federal reserve banks and their branches, and may at its discretion exercise the functions of a clearing house for such Federal reserve banks, or may designate a Federal reserve bank to exercise such functions, and may also require each such bank to exercise the functions of a clearing house for its member banks.¹

CLEARINGS AND COLLECTIONS PLAN

The Federal Reserve Board inaugurated, in June, 1915, a "voluntary reciprocal plan for immediate clearance at all Federal reserve banks where a clearing plan was not already in operation,"² but inasmuch as only 25 per cent of the institutions eligible for membership assented to the voluntary plan it was abandoned in July, 1916, for a compulsory plan.³ The system was not intended to supersede the existing clear-

¹ *The Federal Reserve Act*, p. 40.

² *Federal Reserve Bulletin*, vol. i (1915), p. 6; *The Rand-McNally Bankers' Monthly*, vol. 32 (1915), no. 6, pp. 21-28.

³ *Annual Report of the Federal Reserve Board*, vol. ii (1915), p. 16; *Federal Reserve Bulletin*, vol. i (1915), pp. 192-193.

ing and collection system but merely to supplement it. It was made clear that the Federal reserve banks would neither make nor pay exchange charges, but that the Act authorized collection charges.¹

Various objections were raised against the voluntary plan. Among them were the following: ²

1. Loss of exchange charges by country banks.
2. Items in process of collection could not be counted as part of the reserves with the Federal reserve bank.
3. Country banks opposed the method of charging checks against their reserves with the reserve banks before they had an opportunity to examine and approve them.

The voluntary system did not make it possible for member banks to clear all their out-of-town checks through the reserve banks owing to the comparatively few banks in the clearing system. Realizing the need for a large number of banks, the Board inaugurated the mandatory system which compelled all national banks and state banks which were members of the Federal Reserve System to participate.

Checks-in-transit could no longer be counted as part of the reserves. The "float," created by indirect routing and delayed remittances, placed heavy burdens on collecting banks, and, after the adoption of the plan, on the reserve banks. For this reason the items in the process of collection could not be counted as reserves nor be made available for checking purposes until the collection was completed.

The Federal Reserve Act required the gradual with-

¹ *Federal Reserve Bulletin*, vol. i (1915), pp. 6-9; *Commercial and Financial Chronicle*, vol. c (1915), p. 1216; *Annual Report of the Federal Reserve Board*, vol. i (1914), pp. 119-150.

² Pierre Jay, *The Country Banker and the Federal Reserve System*, 64th Cong., 1st Sess., Sen. Doc. No. 458, 1916, pp. 7-10; *Annual Report of the Federal Reserve Board*, vol. ii (1915), p. 15; Gordon B. Anderson, "Some Phases of the New Check Collection System," *Annals of the American Academy of Political and Social Science*, vol. lxxiii (1916), p. 128.

drawal (over a three-year period) of reserves from the various reserve agents and deposit with the reserve banks.¹ Obviously the reserves could no longer be used to pay for collection of foreign items as had been done previously, but the country and reserve city banks would be faced with the problem of bearing the costs of collecting such items. Inasmuch as the expense of collecting would inevitably fall on the bank receiving them on deposit it must either bear the expense or require depositors to pay it or maintain large enough balances to compensate the bank for rendering such service. It was evident that the transfer of the reserves to the Federal reserve banks would destroy the existing collecting system, hence, the necessity of providing an adequate substitute system, not only "as a matter of both law and justice," but "as a matter of policy as well."

The Board ruled that each Federal reserve bank should receive checks at par from its members and from those of other districts and also from nonmember clearing banks, provided such checks could be collected by the Federal reserve bank at par.² Federal reserve banks were to receive at par checks from other districts so as to establish inter-district clearings and collections. They were to furnish to member banks from time to time revised par lists of nonmember banks. Immediate credit, subject to final payment, was permitted of all the items presented for collection, but the proceeds could not be counted as reserve nor made available to meet checks drawn until actually collected. It will be observed that this provision overcame the earlier objectionable

¹ *Federal Reserve Act*, Sec. 19.

² "Regulation J, Series of 1924," *Federal Reserve Bulletin*, vol. x (1924), p. 489. Under "Regulation J, Series of 1928," the Federal reserve banks were also authorized to receive at par checks from nonmember nonclearing banks if collectible at par in funds acceptable to them. *Federal Reserve Bulletin*, vol. xix (1928), p. 80.

practice of permitting the immediate use of deposited transit items for checking purposes. Although the items were credited immediately at par they were not to be counted as part of the reserves until collected, thus correcting the old abuse of using the "float" to pyramid the reserves. Checks on member banks were not to be charged against their accounts by Federal reserve banks until they had been collected and advice received or sufficient time had elapsed, according to time schedules.

Member banks were equipped to maintain with their respective Federal reserve banks deposits in excess of reserve requirements sufficient to meet all collection items. Penalties were imposed as provided in the Act for encroachment upon reserves. Members were permitted to rediscount commercial paper or could ship at the expense of the Federal reserve banks lawful money or Federal reserve notes to restore their reserves.

The Federal reserve banks were to act as agents only, in the collection of checks for members who must duly authorize such collection. No liability was assumed, in the absence of negligence. Nonmembers were permitted to operate through members. The Board, according to Section 16 of the Act, was authorized to impose collection charges on the banks receiving the service, based on the costs involved.

Attention is called to the early intention of the Federal reserve banks to receive at par from member banks checks on all member banks, and on nonmember banks whose checks could be collected at par by any Federal reserve bank. In fact, the Board proposed and on September 7, 1916, secured an amendment to Section 13 which inferentially permitted the Federal reserve banks to not only receive checks on nonmember banks from members and other Federal reserve banks but to install the necessary machinery to collect them.¹

¹ "Regulation J, Series of 1916," *Federal Reserve Bulletin*, vol. ii (1916), p. 542.

Nonmember banks received the benefits of the system through their correspondent relations with members and could be collected from by Federal reserve banks, under the Act, but not until the Hardwick amendment, June 21, 1917, could they use the Federal reserve banks as collecting agents. Even after the adoption of the amendment comparatively few nonmember banks availed themselves of the privileges, which continued the difficulty and expense of collecting checks drawn on many of the nonmember banks.¹

No bank, either member or nonmember, was required to use the facilities provided, or to discontinue carrying accounts with approved reserve agents or with other banks to whom it may send items for collection and from whom it may collect.² One requirement was definite, however, that it pay without deduction checks drawn on it and presented for payment at its counter. Remittance of checks through the mail by the Federal reserve bank was construed as presentation at the drawee bank's counter and must be settled at par.³ Member banks were required to authorize their respective Federal reserve banks to send checks for collection direct to the drawee banks, despite the fact that it was not only considered illegal under the National Bank Act but also contrary to the established laws of agency,—a bank being asked to collect of itself was considered poor procedure.⁴

Upon the adoption of the compulsory collection plan July 15, 1916, the Federal Reserve Bank of Boston took over the country clearings of the Boston Clearing House. Dallas announced that it would handle its clearing and collection

¹ *Annual Report of the Federal Reserve Board*, vol. iv (1917), pp. 12, 23.

² *Federal Reserve Bulletin*, vol. ii (1916), p. 263, telegram of Governor Hamlin.

³ *Ibid.*, vol. ii (1916), p. 262.

⁴ *Ibid.*, vol. xvi (1930), p. 525; *Regulation J, Series of 1930*, sec. v (2).

system in clearing-house form by either debiting or crediting each bank's account for the net difference of each day's settlement.¹ The Federal Reserve Banks of St. Louis and Kansas City had compulsory systems in operation before the introduction of the voluntary system in 1915, but St. Louis freed its banks from the compulsory requirements and thereby lost about 20 per cent of its banks; Kansas City continued its compulsory plan which was in effect when the plan was introduced in all the districts.

INDUCEMENTS TO NONMEMBER BANKS TO JOIN THE SYSTEM

The general aloofness of nonmember banks caused the Board to inaugurate innovations which were intended to increase the scope of operations and thereby make the system more attractive. The amendments of September 7, 1916, and June 21, 1917, to Section 13, authorized the collection of maturing notes, bills, and other items payable within the district not only from member banks but from nonmembers as well, provided adequate and sufficient offset balances were maintained.² Originally a Federal reserve bank could receive for collection from member banks and clearing nonmember banks and also from other Federal reserve banks items drawn on banks within its own district, but in 1920 the Board ruled that member banks could send for the credit of their Federal reserve bank maturing items direct to the Federal reserve bank of the district in which they were payable. The Board also ruled that a nonclearing but correspondent bank could send for the credit of a member bank bill-of-lading drafts direct to the Federal reserve bank of the district where they were due.³

¹ *Federal Reserve Bulletin*, vol. ii (1916), pp. 315, 317.

² *The Federal Reserve Act*, p. 26.

³ *Federal Reserve Bulletin*, vol. v (1919), p. 467; vol. vi (1920), pp. 276, 948.

THREE KINDS OF DRAFTS INTRODUCED

The transfer of funds under the old correspondent system in which banks drew on their reserve city correspondents became less satisfactory as reserves were transferred to the Federal reserve banks as required under the Act, the final transfer of reserves having been completed on June 21, 1917. To facilitate the transfer of funds to different sections of the country and to avoid as far as possible the necessity for the maintenance of accounts between banks for exchange purposes, Federal reserve exchange-, Federal reserve transfer-, and ordinary Federal reserve drafts were introduced by the Board.

The exchange draft is drawn by a member bank upon its Federal reserve bank and is immediately available at par at any Federal reserve bank. The transfer draft is made payable to a specified Federal reserve bank. In the exchange draft the maximum amount was restricted first to \$250 and then to \$5,000 and the transfer draft to a minimum of \$250. When either type of draft is drawn the drawer must notify daily by mail its Federal reserve bank which charges the member's account.¹ Neither the transfer draft nor the exchange draft has been used extensively, the member banks finding it desirable to continue their old correspondent arrangements.² The third type is the ordinary Federal reserve draft which is receivable at par only by the Federal bank in the district where the drawer bank is situated and hence is restricted to use within the bank's own district.

¹ *Federal Reserve Bulletin*, vol. iii (1917), p. 348; vol. iv (1918), p. 819; *Federal Reserve Exchange*, Letter No. 17, Federal Reserve Bank of Richmond (September, 1924), pp. 3-10.

² *Letter No. 17*, pp. 5, 10.

Each Federal reserve bank was required to forward to the Treasury or any sub-treasury \$1,000,000 in gold, gold certificates or gold order certificates for the account of the fund and also an additional amount to cover each bank's net indebtedness to the other Federal reserve banks. A balance of at least \$1,000,000 must be maintained in the fund by each bank. The fund is deposited in a special account in the Treasury for the Federal Reserve Board. The Secretary of the Treasury formerly issued gold order certificates in denominations of \$10,000 payable to the order of the Board, but after the amendment to Section 16 on June 21, 1917, receipts for the entire deposits were issued. This change obviated the necessity for two representatives of the Board and the representatives of the Treasury Department opening the safe in the Treasury Department and making actual transfer of gold order certificates from one fund to another whenever transfers were requested by a Federal reserve bank to a Federal Agent or vice versa. Withdrawals from the fund no longer require visits to one or more safes. The many fiscal operations of the Government during the World War, the transfer of large receipts of income taxes, the enormous increases in Federal reserve notes backed by 40 per cent gold deposits, the interdistrict clearing system and other interdistrict transactions, were greatly simplified and facilitated through the use of the fund.

Originally settlements among Federal reserve banks were effected weekly, but in July, 1918, daily balances were introduced. Certain branches, designated as direct-settling branches, of the Federal reserve banks also enjoy the facilities of the Gold Settlement Fund. These branches make direct settlements in the same manner as do the Federal reserve banks, except that the net balances are adjusted through the head office as the branches do not maintain separate accounts with the fund. No entry affecting the fund may be

made by any Federal reserve bank without receiving directions from the settling agent, otherwise the accounts of the banks and the Board would likely disagree.

At the close of business each day the Federal reserve banks and direct-settling branches telegraph, over the leased wires of the Board (established June 4, 1918, connecting the Federal reserve banks and the Board and also the banks themselves), the total amounts credited during the day to the respective reserve banks and settling branches. Having received telegrams from the reserve banks and their branches, the settling agent, early the following morning, debits and credits the fund accounts of each bank and dispatches corresponding advices to each. That is, the Federal reserve banks telegraph the Federal Reserve Board at the close of business each day the amounts due to each of the other Federal reserve banks, and the Board wires back the amounts due from each of the other Federal reserve banks, and also their net debit or credit balances resulting from the settlements. The bank sending the telegram is charged with the amount stated in its advices and the other eleven banks are credited according to the advice.¹ In each case the debit balance on the books of each Federal reserve bank is represented by a corresponding credit balance on the books of the Board. The total credit balances as shown by the books of the Board correspond in exact amount with the fund.

Although the fund was originally established for the purpose of expediting the settlement of balances between the Federal reserve districts arising out of exchange and clearing operations, yet, at times, especially during the peak of crop-moving time when the credit strain is usually heaviest, it also makes possible the transfer of funds from one dis-

¹ *The Gold Settlement Fund*, Letter No. 7 (September, 1922), and *Practical Operation of the Gold Settlement Fund*, Letter No. 8 (October, 1922), Federal Reserve Bank of Richmond.

district to another in connection with the large rediscounting incident to such credit conditions. When the transfer of funds becomes necessary it is effected upon the advice of the Federal reserve banks concerned, by a simple bookkeeping entry in the gold clearing books of the Federal Reserve Board in which the one district is credited and the other debited. The physical transfer of gold is thus reduced to a minimum, but title thereto is conveyed with ease.

A brief explanation of the *modus operandi* in the use of the Gold Settlement Fund in effecting interdistrict transfer was given on April 1, 1920 by the Federal Reserve Board to a United States Senator: ¹

Since the establishment of the Federal Reserve Banks the cost of transferring balances from one section of the country to another has been almost entirely eliminated. Each Federal Reserve Bank carries a portion of its gold reserve in a gold settlement fund which is kept in the Treasury at Washington, and there is a daily telegraphic clearing conducted by the Federal Reserve Board for all twelve banks and for their branches. The amount of gold in the fund is practically a stable quantity, but its ownership varies from day to day according to the debits and credits of the different banks. Transfers are made by the Federal Reserve Banks for their member banks and also for nonmember banks through the medium of member banks, by telegraph without any charge whatever to the member bank or its client, all costs being borne by the Federal Reserve Banks. . . . The Federal Reserve Banks pay all costs of transporting currency to or from member banks as well as transportation charges on currency sent them by nonmember banks in payment of checks.

The extent to which the fund has been utilized is shown by Table IX:

¹ *Annual Report of the Federal Reserve Board*, vol. vii (1920), p. 67.

TABLE IX

CLEARINGS AND TRANSFERS THROUGH THE GOLD SETTLEMENT FUND¹

[In millions of dollars]

Year	Transit and Federal Reserve note clearings	Inter-reserve bank transfers	Total Clearings and transfers	Balance in Gold Settlement Fund at close of business December 31
1929.....	145,891.1	1,052.1	146,943.2	511.2
1928.....	133,183.6	1,172.6	134,356.2	687.0
1927.....	123,704.7	1,436.7	125,141.4	528.2
1926.....	116,091.1	1,043.4	117,134.5	665.3
1925.....	108,289.5	909.0	109,198.4	689.2
1924.....	97,698.3	919.6	98,617.9	679.5
1923.....	89,614.7	1,039.2	90,653.9	554.4
1922.....	75,336.0	1,154.0	76,490.0	522.1
1921.....	64,934.8	3,289.1	68,223.9	357.3
1920.....	85,074.2	7,551.6	92,625.8	329.7
1919.....	66,053.4	7,930.9	73,984.3	401.9
1918.....	45,439.5	4,812.1	50,251.6	311.6
1917.....	24,319.1	2,643.8	26,962.9	169.7
1916.....	..	..	5,554.0	77.8
1915.....	..	..	1,052.6	..
(May 30 Dec. 31)				

TELEGRAPHIC TRANSFERS

The leased wire system connecting all Federal reserve banks and branches, the Federal Reserve Board and the Treasury Department, greatly facilitates the transfer of bank balances for member banks. It is now practicable to transfer virtually any amount (in multiples of \$100) from any member bank to any other member bank anywhere in the United States without delay, without the shipment of currency, and without even making count of any currency in connection with the transfer, at a nominal cost to the Federal reserve banks and with no cost at all to the member

¹ Compiled from the *Federal Reserve Bulletins* and the *Annual Reports of the Federal Reserve Board*.

banks involved.¹ The Gold Settlement Fund makes possible the transfer of bank balances at par to or from any Federal reserve bank or branch for the account of a member bank. Upon receipt of a transfer request (by mail, telegraph or in person) the account of the sending member bank is charged by its reserve bank and the account of the receiving member bank is credited by its reserve bank. The amount involved is included in the daily total of credits reported by the sending Federal reserve bank to the Federal Reserve Board and is then charged against its account with the Gold Settlement Fund and credited to that of the receiving Federal reserve bank. Telegraphic transfers are accepted from and paid to member banks only. No request received from a non-member bank, individual, firm or corporation is acceptable.² They must operate through members in order to enjoy the facilities of telegraphic transfer. Collection items are not acceptable as delay is necessary before the proceeds can be made available for transfer.

Only transfers of bank balances (an accumulation of funds comprising an established account maintained by a member bank with a Federal reserve bank or another member bank) in multiples of \$100, are made over the leased wires. Transfers of the proceeds of collection items are not made over the leased wires, nor can the leased wires be used for tracing or advising payment or non-payment of any non-cash collection item. The leased wires would otherwise be overloaded and more important business crowded out. The Federal reserve banks, however, make telegraphic transfers of funds for any purpose and in any amount for member banks over the commercial telegraph wires, but in such in-

¹ *Telegraphic Transfers*, Letter No. 19, Federal Reserve Bank of Richmond (July), 1926, pp. 1, 3, 8; *Federal Reserve Bulletin*, vol. iv (1918), p. 371.

² *Letter No. 19*, p. 7.

stances the costs of all telegrams are charged to the member banks. The transfers over commercial wires are accepted from and paid to member banks only, but they may be for the use of any bank, individual, firm or corporation.¹

Although the telegraphic transfer facilities were made available early in 1915, not until June, 1918, when the leased wire system was introduced, were they used to any considerable extent. With the simplification of the system and a better knowledge of its advantages there have developed telegraphic transfer operations of enormous proportions. Table X shows the number and amount of transfers made by the Federal reserve banks and branches, but inasmuch as the figures include both interdistrict and intradistrict transfers it is difficult to ascertain the exact amount of transfers on telegraphic instructions, perhaps 50 per cent of the total.²

TABLE X
TRANSFER OF FUNDS BY FEDERAL RESERVE BANKS
(000 omitted)

Year	Number	Amount
1920	732	\$48,979,205
1921	1,080	50,936,519
1922	1,190	70,553,465
1923	1,413	78,867,108
1924	1,503	98,359,028
1925	1,566	109,430,683
1926	1,710	120,909,439
1927	1,830	136,383,899
1928	2,011	148,749,027
1929	2,139	170,789,669
1930	1,868	198,880,880

¹ Letter No. 19, pp. 8-9.

² Letter No. 19, p. 10; Letters dated September 19, 1929, May 23, 1930 and February 5, 1931, from E. L. Smead, Chief, Division of Bank Operations, Federal Reserve System, Washington, D. C.

Telegraphic transfers of the Federal reserve banks have practically eliminated the cost of exchange. Intra-district transfers are made on the books of the Federal reserve bank and do not involve any transactions in the Gold Settlement Fund.

MEMBERSHIP OF FEDERAL RESERVE SYSTEM

Section 2 of the Federal Reserve Act required all national banks to assent to the terms and provisions of the Act within sixty days after its passage. The banks were to subscribe to the capital stock of the reserve banks of their respective districts a sum equal to six per cent of their paid-up capital and surplus. Failure to comply within one year would deprive national banks of their charter privileges; in short, national banks were practically *ipso facto* members of the Federal Reserve System. Unfortunately no sweeping requirement could be made sufficiently comprehensive to include all the desirable state banks and trust companies. The Board realized from the beginning that it was not only desirable but quite necessary to the greatest success of the system that it embrace the larger state institutions. The Board stressed quality rather than quantity which tended to discourage membership. State banks enjoyed most of the benefits of the system without assuming the obligations, hence their reluctance to join.¹ President Wilson's appeal to their patriotism induced many to join,² but the aftermath of the war

¹ *Letter No. 14* (December, 1923), "State Bank Membership;" Willis and Steiner, *op. cit.*, chap. ii; Charles S. Tippetts, *State Banks and the Federal Reserve System* (New York, 1929), chaps. vi, vii; *Commercial and Financial Chronicle*, vol. c (1915), pp. 1792-1794; *Annual Report of the Federal Reserve Board*, vol. v (1918), pp. 24-27.

² *The Bankers' Magazine*, vol. xcv (1917), pp. 683-684; W. P. G. Harding, *The Formative Period of the Federal Reserve System* (New York, 1925), pp. 84-85; *Annual Report of the Federal Reserve Board*, vol. vi (1919), p. 28; *Journal of American Bankers' Association*, vol. x (1917-1918), pp. 247-250, 253-258, 271-272.

witnessed many withdrawals not only because of disaffections but also owing to mergers and failures during the last decade. Favorable legislation in many states which permitted the substitution of national reserve requirements for those of the states, several amendments to the Act, among which was the privilege of withdrawal on six month's notice, and the cooperation of state banking commissioners, proved effective means of increasing membership.

After the war, the patriotic appeal lost its force; the security afforded by the system and the rediscounting privileges, both important factors during the periods of unrest and of large demands for credit, exerted slight appeal. From the high point of 8,220 national banks and 1,639 state banks, constituting in 1922 a total membership of 9,859, the membership at the end of 1929 consisted respectively of 7,403, and 1,119, a total of 8,522.¹

The essential reasons for refusing to join or for severing relationship were: ²

1. Non-payment of interest on reserve balances kept with the Federal reserve bank.
2. The fact that transit items may be counted as reserves under most state laws but are not available in Federal Reserve System until sufficient time for their collection has elapsed.
3. Easy money made it unnecessary to borrow from the Federal reserve banks.
4. Hostility arising from campaign for universal par collection of checks.

¹ *Annual Report of the Federal Reserve Board*, vol. xii, p. 176; vol. xiv, p. 244; vol. xv, p. 137; vol. xvi, pp. 21, 126.

² Tippetts, *op. cit.*, pp. 99-102, 155-157; Pierre Jay, "The Federal Reserve System, State Banks and Par Collections," *American Academy of Political and Social Science*, vol. xcix (1922), pp. 79-86; *Annual Report of the Federal Reserve Board*, vol. xi (1924), pp. 22, 23-24; vol. xii (1925), p. 29; vol. xvi (1929), pp. 20-21.

5. State guarantee of deposits.
6. Membership, it is claimed, involves too much red tape, also duplication of supervision and too many reports and examinations.
7. Many state banks are not desired because of their unsound condition.
8. Bank mergers.
9. Bank failures.

Of the 24,321 banks in the United States on December 31, 1929, only 8,522 or 35 per cent were members.¹ Universal par clearance and collection has not and, in fact, cannot be attained through membership. Many state banks cannot meet the membership requirements and many others feel that they secure practically all of the advantages of the system through correspondent relationships and in addition obtain greater freedom because of less restrictions imposed by state law. Realizing the desirability of nation-wide par clearance but knowing that many banks could not become members, the Board introduced a system of clearance and collection which was designed to embrace all banks regardless of size.

GROWTH OF THE SYSTEM

Table XI shows the growth of the clearing and collection system. The high point was reached in 1920 when 19,139, or 91.6 per cent of all nonmember banks remitted at par.² Since then the defections have been gradual but persistent. They followed unfavorable court decisions and adverse state legislation. The table clearly shows the trend, which is downward both actually and relatively. It

¹ *Annual Report of the Federal Reserve Board*, vol. xvi (1929), pp. 21, 31, 126.

² The greatest number of non-member banks on the par list for any single month was 19,188, for November, 1920; *Federal Reserve Bulletin*, vol. vii (1921), p. 850.

must not be overlooked that, although mergers, voluntary liquidations and a great many failures account for most of the decrease gradual withdrawals persist. The number of non-par banks is not the test; the ratio to the total is more significant. Despite the substantial decline in number of banks on the par list, the number and volume of items handled have shown a wholesome increase. This is a clear indication that the system is being used more and more, but is not equivalent to the statement that the relative position is being maintained. With the exceptions of 1921 and 1922, in which business was depressed, the total amount of the items handled increased. The rate of increase in amount, however, was much less than in the number of items handled. The volume in 1917, the first full year of operations, amounted to 51.6 billions of dollars as compared with 367.2 billions in 1929, an increase of 611 per cent. In 1917 the number of items handled was 84.7 millions and in 1929 it was 924.4 millions, an increase of 991 per cent.

The table shows that, up to 1921, the number and amount of items collected at par increased steadily and also the number of nonmember banks on the par list, but after 1920 a reaction set in. Practically every case of substantial progress was due to the "energetic solicitation by one or more members of the staff of the bank who have devoted their attention to the matter and have done actual work for the purpose of adding to their par list."¹ At times their activities were perhaps too energetic as unnecessary opposition to the system was aroused. It was estimated that, of the 20,264 nonmember banks in the country, more than 60 per cent remitted at par on August 31, 1919, representing probably 90 per cent of the banking resources of the country.²

¹ *Federal Reserve Bulletin*, vol. iv (1918), p. 75.

² *Ibid.*, vol. v (1919), p. 881.

TABLE XI
GROWTH OF THE FEDERAL RESERVE CLEARING AND COLLECTION SYSTEM¹

Year ended Dec. 31	Total number of items handled (Millions)	Total amounts handled (Billions dollars)	Number of member banks	Number non-member banks			Total banks on par list	Per cent of non-member banks on par list to total banks on par list	Per cent of non-member banks on par list to total non-member banks
				On par list	Not on par list	Total			
1916 Aug. 15 to July 15	..	..	7,624	7,032	..	..	14,656	47.98	..
1917 Dec. 31	28.9	12.5	7,627 ²	8,065 ²	..	..	15,692	51.39	..
1918	84.7	51.6	7,823 ²	9,321 ²	..	..	17,144	54.37	..
1919	172.8	121.5	8,692	10,305	10,247 ²	20,552 ²	18,997	54.25	50.14
1920	311.6	156.9	9,066	16,499	3,996	20,495	25,565	64.54	80.50
1921	504.2	179.5	9,629	19,139	1,755	20,894	28,768	66.53	91.60
1922	574.9	130.2	9,841	18,102	2,263	20,365	27,943	64.78	88.89
1923	638.6	160.5	9,916	17,822	2,288	20,110	27,738	64.25	88.62
1924	697.5	207.7	9,896	16,725	2,896	19,621	26,621	62.83	85.24
1925	742.9	219.8	9,682	15,445	3,647	19,092	25,127	61.47	80.89
1926	778.7	258.6	9,489	14,643	3,970	18,613	24,132	60.68	78.67
1927	822.9	272.9	9,260	13,911	3,913	17,824	23,170	60.04	78.04
1928	862.3	278.4	9,034	13,247	3,910	17,151	22,281	59.45	77.21
1929	888.0	301.7	8,837	12,643	3,911	16,554	21,480	58.86	76.37
	924.4	367.2	8,522	12,045	3,754	15,799	20,567	58.55	76.24

¹ Compiled and calculated by the author. *Federal Reserve Bulletin*, vol. v (1919), p. 775; vol. xvi (1930), p. 95; *Annual Reports of the Federal Reserve Board*, vol. iii (1916), pp. 11, 12; iv (1917), p. 140; v (1918), p. 205; vi (1919), p. 223; ix (1922), p. 146; x (1923), p. 162; xii (1925), pp. 110, 112; xiii (1926), pp. 122-123; xv (1928), pp. 21, 161; xvi (1929), pp. 31, 126, 145.

² December 15.

³ Approximate figures.

All Federal reserve districts, save Atlanta, Richmond and St. Louis, reported 100 per cent of their banks on the par list on June 1, 1920, but thereafter there was a gradual falling away until by January 31, 1931, only the Boston, New York and Philadelphia districts could report that all banks in their districts remitted at par. On the former date, there were only eight states, all in the South-East, in which all the banks *did not* remit at par; on December 31, 1929, there were only fourteen states and the District of Columbia in which all banks *did* remit at par.¹

The chief difficulty from the beginning was in the Southern and West North Central States and there the greatest defection occurred, following the adverse decisions in the Atlanta and Richmond cases.² Not only the country banks in the immediate territory involved withdrew in substantial numbers, but also the banks in other districts, such as Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco.³ The Supreme Court decisions encouraged the non-assenting banks to increase the vigor of their agitation against the system. Their organizations became more effective and banks which joined under pressure found encouragement for withdrawal. It was unfortunate that the court found it necessary in the Atlanta case to state that it was not the duty of the Board to establish universal par collections. The Board had long considered the establishment of par collections its duty imposed by Congress, although not specifically stated in the Act. Since the Atlanta Case, 1923, recalcitrant banks have gone to the extreme in

¹ *Annual Report of the Federal Reserve Board*, vol. xvi (1929), p. 149.

² *American Bank and Trust Co. et al. v. Federal Reserve Bank of Atlanta et al.*, 262 U. S. 643 (1923); *Farmers and Merchants Bank of Monroe, North Carolina et al. v. Federal Reserve Bank of Richmond, Virginia*, 262 U. S. 649 (1923).

³ *Federal Reserve Bulletin*, vol. ix (1923), pp. 1164, 1240, 1323.

emphasizing the lack of responsibility of the Board for universal par collections.

The many small bankers who have depended to such a large extent upon exchange charges for their profits have not seen fit to give up "the sweet morsel" to the alleged entire benefit of the large financial institutions in the commercial centers. Whether their claims are true or false they persistently hold to the idea that to take away from them the right to charge for exchange would result either in absolute suspension of their banking activities or a diminution of profits to a point where further banking would be undesirable.

Probably no problem confronting the Federal Reserve Board has presented more difficulty and resulted in greater protest and bitterness than that of universal par remittance. Determined opposition by exchange-charging banks was manifest in the beginning, but received greater impetus as the system encroached upon one of their reputed chief sources of revenue. Their stubborn resistance induced the Federal reserve banks, with the consent of the Board, to resort to various means of inducing compliance. At first the reserve banks used explanation and persuasion. By correspondence and personal visits of representatives of the Federal reserve banks the objects and advantages of the par collection plan were explained to the nonmember banks. When enough banks in a particular district or state agreed to remit at par the Federal reserve bank of the district would announce that upon a certain date it would collect at par on all banks within the prescribed area. In some instances it was necessary to collect through the agency of individuals or express companies. Checks were sent to the agent and presented by him over the counter of the bank for collection. Usually a few presentations were sufficient to induce the refractory banks to accede.¹ Although many banks through-

¹ Letter No. 6, pp. 1-2.

out the country agreed to remit at par they did so unwillingly and under protest.¹

The opposing banks were unorganized in the beginning, but as the par-remittance campaign developed and the animosity increased the bankers from eight Federal reserve districts organized themselves in 1920 into the National and State Bankers' Protective Association and were thus prepared to act with concerted force in securing adverse state legislation and promoting litigation which would likely enjoin what they considered illegal practices.² In answer to the vigorous protests against these coercive methods the Federal reserve banks asserted that since they were not permitted by law to pay exchange charges, but were required to establish universal par collections, and inasmuch as drawee banks must pay in full for checks presented over the counter the only recourse left was to make direct presentation. To compel member banks to remit at par when non-members were charging exchange placed them at a disadvantage. The Board considered it desirable, in justice to member banks, to receive at par all checks payable on presentation regardless of the drawee banks. If the Federal reserve banks were to act as clearing houses, as contemplated in section 16, it became necessary to extend the system to embrace if possible all the banks of the country. The desire to establish a universal par clearance and collection system accounts for the energetic efforts of the Federal reserve

¹ *Hearings on H. R. 12379, loc. cit.*, pp. 22-23, 27, 29, 58, 59-60, 74, 77-79, 81, 86-87, 94, 105-116.

Mr. G. G. Spier, Banking Commissioner of Kentucky, said that of the 367 banks which answered his inquiry, "One said they favored clearing at par, 37 agreed to clear voluntarily, 77 were urged with the veiled threat; the remainder were taken by the nape of the neck and kicked into the midst of the proposition." *Ibid.*, p. 77.

² *Annual Report of the Federal Reserve Board*, vol. vii (1920), pp. 63-69.

banks in extending the system despite the determined opposition of refractory banks.¹

The opposing bankers increased their efforts to thwart the purposes of the Federal reserve banks. Resistance was especially intense in the South. Southern bankers organized themselves into effective associations to combat the encroachment of the par clearance system. On October 16, 1919, for instance, the bankers of Louisiana adopted a resolution that banks not desiring to remit at par should print on the face of their checks, "This check will not be paid through express companies, post offices, or any Federal reserve bank or its agents." Eight days later the Mississippi bankers recommended that the banks print on their checks, "Payable in cash to the original payee, otherwise in exchange at a maximum service charge of 1-10 of 1 per cent."²

Following the lead of the Louisiana and Mississippi banks and as a direct answer to the declaration in December, 1919, by the Federal Reserve Bank of Atlanta that all banks in its district were to be placed on the par list, the objecting bankers early in 1920 secured an injunction against the Atlanta bank. This suit was the harbinger of a series of Congressional investigations,³ state legislative enactments,⁴ court decisions and the organization and agitation of opposing

¹ *Annual Report of the Federal Reserve Board*, vol. vi (1919), pp. 40-44; *Federal Reserve Bulletin*, vol. v (1919), pp. 1113-1114, Letter of Governor W. P. G. Harding dated November 28, 1919.

² *Journal of American Bankers Association*, vol. xii (July, 1919-June, 1920), p. 334.

³ *Hearings on H. R. 12379, loc. cit.*, "Hearings before the Committee on Rules, House of Representatives," 66th Cong., 2nd Sess., on H. R. 476; see also *Referendum No. 39 on the Report of the Committee on Par Clearance for Checks*, Chamber of Commerce of the United States of America (Washington, D. C., Aug. 30, 1922).

⁴ *Annual Report of the Federal Reserve Board*, vol. vii (1920), pp. 327-329.

bankers¹ which definitely checked the expansion of par remittance.

Several state legislatures came to the assistance of non-assenting state banks through the passage of laws designed to check the compulsory methods of the Federal reserve banks. Mississippi enacted a law, in 1920, which made it mandatory on both state and national banks within the State, except in special cases, and unless the courts ruled otherwise, to charge exchange on checks, drafts, and bills presented by "any bank, banker, trust company, Federal reserve bank, post office, express company, or any collection agency," at the rate of one-tenth of one per cent of the total amount, but not less than 10 cents on any single transaction. No officer of the State is permitted under the law to protest checks or drafts for non-payment when such non-payment is solely on account of failure or refusal of any bank or collection agency to pay exchange. In the event that the courts should hold that national banks were not subject to the law, exchange charges were made optional with nonmember banks in communities where members of the Federal Reserve System made no charge.²

Louisiana approved, in 1920, a similar law except that exchange charges were optional instead of mandatory, and that in cases where checks are accumulated before presentation the paying bank has the right to three days time or to pay in exchange on its correspondent.³ The presentation of more than three drafts over five days after their receipt by

¹ *Journal of American Bankers Association*, vol. xi (July, 1918-June, 1919), pp. 660-664; vol. xii (July, 1919-June, 1920), pp. 67-73, 407-408; vol. xiii (July, 1920-June, 1921), pp. 68, 268, 384-397; Spahr, *op. cit.*, pp. 249-256.

² *Mississippi Laws, 1920*, chap. 183; see also *Annual Report of the Federal Reserve Board*, vol. vii (1920), p. 327.

³ *Acts of the State of Louisiana, 1920, No. 23 and No. 175; Annual Report of the Federal Reserve Board*, vol. vii (1920), pp. 327-328.

the bank presenting them is considered *prima facie* proof that they were withheld in order to injure the drawee bank. Table XII with explanatory notes contains the essential provisions of the statutes of the eight states which passed laws to check par collections.¹

Perhaps the law which provoked the most difficulty was section 2 of the North Carolina law which provides that "all checks drawn on said banks and trust companies [within the state] shall, unless specified on the face thereof, to the contrary by the maker or makers thereof, be payable at the option of the drawee bank, in exchange drawn on the reserve deposits of the said drawee bank when any such check is presented by or through any Federal Reserve Bank, Post Office, or Express company, or any respective agents thereof." The Richmond case was the outcome of this legislation.² The Federal Reserve Board took the position that the state laws were clearly unconstitutional in so far as they purported to require national banks, and state banks which had joined the Federal Reserve System, to make exchange charges against Federal reserve banks.

It is evident that many member as well as non-member banks do not avail themselves of the service rendered by the Federal Reserve System, but instead send their items for collection to their city correspondents where they receive interest on balances maintained and also other banking service

¹ *Mississippi Laws, 1920*, chap. 183. Effective March 6, 1920. *Acts of the State of Louisiana, 1920*, No. 23. Also *Act No. 175, 1920, Section 2*. Effective June 25, 1920. *Laws of South Dakota, 1920*, chap. 31. Effective July 3, 1920. *Georgia Statutes, Session Laws, 1920*, Part I, Title VI, p. 107. Effective August 14, 1920. *General and Local Laws of Alabama, Special Session, 1920*, No. 35. Effective October 30, 1920. *Public Laws of North Carolina, 1921*, Chap. 20, Sec. 2. Effective February 5, 1921. *Public Acts of Tennessee, 1921*, Chap. 37. Effective March 21, 1921. *Florida Statutes, Session Laws, 1921*, Vol. I, Chap. 8532. Effective April 29, 1921.

² *Supra*, footnote 2, p. 153.

TABLE XII
STATUTES OF STATES AFFECTING PAR REMITTANCE

Date of Approval of Act	States in which officers cannot protest	Exchange Charges			Payment of check in money or exchange or optional
		Optional	Mandatory	Amount	
1920 Mar. 6	Miss.	. .	Miss.	1/10 of 1% Minimum 10 cents	. . .
June 25	La.	La.	. . .	ditto	. . .
July 3	S. Dak. ^a	S. Dak.	. . .	ditto	S. Dak. ^d
Aug. 14	. . .	Ga.	. . .	1/8 of 1% Minimum 10 cents	Ga.
Sept. 30	Ala. ^b	Ala. ^c	. . .	ditto	Ala. ^c
1921 Feb. 5	N. C.	N. C.	. . .	ditto	N. C.
Mar. 21	Tenn.	Tenn.	. . .	1/10 of 1% Minimum 10 cents	. . .
April 29	Fla. ^b	Fla. ^c	. . .	1/8 of 1% Minimum 10 cents	Fla. ^c

^a Officer protesting is guilty of misdemeanor.

^b Officer protesting is responsible for any damages to all interested persons or corporations.

^c Laws both mandatory and optional.

^d Law provides that if the amount presented in any one day for payment is more than the legal reserves, a bank may make payment in exchange instead of cash.

^e In Alabama and Florida whenever checks are forwarded or presented to a bank for payment, except by the payee in person, the paying or remitting bank may pay, at its option, either in money or exchange, and may at its option charge exchange not exceeding 1/4 of 1% with a minimum charge of 10 cents.

Note. In Mississippi, South Dakota, North Carolina and Tennessee the statutes prohibit legal action against banks for nonpayment when such nonpayment is based solely on the ground of refusal to pay exchange charges.

which the reserve banks are not permitted by law to render. Mr. Demmery,¹ in 1924, received two hundred and seventy

¹ Joseph Demmery, "Correspondent Banks and the Federal Reserve System," *The University Journal of Business*, vol. ii (1923-1924), no. 3, pp. 288-309.

replies to a questionnaire sent to member banks relative to their use of the Federal Reserve System and of correspondent banks. As a result of the replies he concluded that a very large percentage of cash collection items are not routed through the system. Without weighting for relative importance, the replies indicated that 21 per cent of the cash letters were sent through Federal reserve banks and 79 per cent through correspondent banks; 12 per cent of collection items were routed through the Federal reserve banks and 88 per cent through correspondents; 13 per cent of drafts were drawn on Federal reserve banks and 87 per cent on correspondents; and 56 per cent of transfers were through the system while 44 per cent were made through correspondents.

These data, while not conclusive, show the tendency for member banks not to use the collection service of the system. Nevertheless, many of the checks for collection are re-routed by the correspondents through the reserve banks. This is especially true of correspondent banks in Federal reserve cities.

Mr. Demmery states that there are many reasons for the current practice. "In remitting cash letters to federal reserve banks checks must be listed on separate cash letters, according to their availability, in order to secure the quickest credit for the items, but correspondent banks will receive check collections listed irrespective of the location of drawee banks and give immediate credit for them." Federal reserve banks impose a charge of fifteen cents per item returned uncollected; correspondents charge nothing. Members transfer funds through correspondents rather than use the free transfer service provided by the Gold Settlement Fund, because the member's account is charged immediately by the reserve banks, in contrast to the correspondent bank method which postpones the charge until the payee deposits the item with the correspondent bank. It is easier to borrow

from correspondents because of less stringent requirements as to eligibility of paper.¹ Personal loans to bank officers are also frequent.

FICTITIOUS RESERVES AND THE "FLOAT"

Under the National Bank Act and amendments thereto it was necessary for central reserve city banks² to carry reserves in their vaults equal to 25 per cent of their circulation and deposits. Reserve city banks were also required to carry the same rate but they could deposit as much as one half of their legal reserves in central reserve city banks. The reserves required of country banks amounted to 15 per cent, of which not more than three-fifths could be carried in central reserve city banks and reserve city banks.³ Although the law did not require the banks to carry reserves in the large financial centers, they found it desirable to do so to facilitate exchange, to collect items for their customers, and to secure interest on funds which otherwise would remain idle.

Country banks deposited part of their reserves in reserve city banks and central reserve city banks, and reserve city banks kept part of their reserves in the large central reserve

¹ Demmery, *op. cit.*, pp. 306-309.

² Reserve city is one having a population of 50,000 or more (in 1903 reduced to 25,000) and has been so designated by the Comptroller of the Currency upon application of three-fourths of the national banks situated therein. (There are about 62). Central reserve city must have a population of at least 200,000 and be so designated by the Comptroller. New York, Chicago and St. Louis were formerly central reserve cities, but the latter is no longer so regarded. Banks in all other cities, regardless of size, are known as country banks. *U. S. Statutes, Statutes at Large*, 44 Pt. 1, 60th Cong., 1925-1927, Sec. 141, p. 268. The Federal Reserve Board increased the population requirement to 50,000 before a city may be designated a reserve city.

³ *U. S. Statutes, Statutes at Large*, 13, 38th Cong., 1st Sess., 1863-1865, ch. 106, sec. 31, pp. 108-109; Ray B. Westerfield, *Banking Principles and Practice*, Rev. Ed. (New York, 1928), p. 324.

city banks. Funds thus tended to gravitate to the larger centers where they were loaned primarily in the call market to support stock-exchange transactions. When danger ensued as a result of inflation and perhaps general over-extension, the reserves, instead of becoming available to avert a money and credit stringency, were zealously guarded by the banks lest they should fall below legal requirements. The primary purpose of reserves, that is, to provide available funds to meet unusual demands, was thus defeated. Our purpose is not to discuss the various evils of such a reserve system, but rather to indicate the evil effects arising from the correspondent system which was encouraged through this wide distribution of reserves throughout the country.

Country banks, as previously indicated, sent their collection items to the reserve city and central reserve city banks for which little or no collection and exchange charges were made, but insisted on charging for similar service. Interest at about two per cent was paid by the depository banks on balances which were also counted by the country banks as part of their legal reserves. More serious, however, than interest payments and collection charges was the indefensible practise of the customer bank in taking immediate credit and including in its reserves the items sent for collection. In such cases the reserves shown on its books were greater than those shown on the books of its correspondent during the time the items were in transit. If the correspondent bank gave immediate credit on arrival the reserves were then inflated as considerable time usually elapsed before the actual collection and availability of the funds. In many cases the items proved uncollectible and to that extent the reserves were overstated. As a result, reserve banks in times of stringency were compelled to carry items that could not be converted immediately into legal reserves. Fictitious reserves amounting to large sums defeated the purpose in-

tended by the National Bank Act. Inelasticity of currency aggravated the difficulty. Reserves lacked mobility and were so widely distributed that their potential value under concentration was almost entirely dissipated.

The desire to avoid collection charges caused the banks to send their collection items to correspondent banks, regardless of the circuitry of the route and the inevitable delay. A large percentage of the stated reserves were in process of collection for unwarranted periods of time. It has been estimated that the "float," that is, the cash items in process of collection, constituted from one-third to one-half of the deposited reserves. The amount afloat in the mails was estimated to be about \$200,000,000 on the average, but to have been more than \$500,000,000.¹

CONCENTRATION OF RESERVES

Centralization of clearings is difficult if not impossible to accomplish without concentration of reserves. The practice adopted in England in which the clearing banks carry reserves with the Bank of England improved the operations of the London Clearing House. The methods of settling balances in New York City at the present time demonstrates the principle involved, but to give it universal applicability there necessarily arises the need for greater concentration of reserves. Developments since the establishment of the Federal Reserve System show the effectiveness of concentrated reserves because of their general mobility to accommodate seasonable and unusual demands of the various sections of the country. The axiom "In union there is strength" is

¹ Henry Parker Willis, *The Federal Reserve System* (New York, 1923), p. 1071; American Bankers Association, *Proceedings of Annual Convention* (1916), vol. xl, p. 602; Westerfield, *op. cit.*, pp. 330, 484; Pierre Jay, *The Country Banker and the Federal Reserve System*, 64th Cong., 1st Sess., Sen. Doc. No. 458 (April 17, 1916), p. 7; Major B. Foster, *Banking* (New York, 1923), p. 181.

illustrated in the greater amount of support to the credit structure enabled by a given amount of reserves. If the scope of the clearing system is enlarged there will be more offsets, which tend to render the concentrated reserves still more effective. With a given amount of specie it is evident that the greater its concentration with the accompanying centralization of the clearing system the more potent it becomes in supporting the credit structure and maintaining the general price level. If to this desideratum there could be added universal par remittance, specie would perform its complete function in the mechanism of exchange by securing the full benefits of deposit currency to the entire country.¹

RESERVE FUNCTIONS

Of the \$10,867,000,000 of gold holdings by central banks and governments in 44 countries of the world, the United States in October, 1930, held \$4,184,000,000.² On June 30, 1929, coin and other money in the United States amounted to \$8,538,796,197. Of this amount the Treasury and the banks held \$3,792,499,630, against total circulation of \$4,746,296,567 or \$39.62 per capita.³ Against these sums, total deposits were \$57,910,641,000, of which savings deposits exceeded \$24,000,000,000.⁴ Manifestly, if the total gold surplus of the country were made available, the banks could not pay in gold more than about 7 per cent if all depositors, assuming that possible, were to demand pay-

¹ Westerfield, *op. cit.*, chap. xx; Spahr, *op. cit.*, pp. 96-98; Foster, *op. cit.*, pp. 122-130; *Proceedings of American Bankers Association* (1911), p. 716.

² *Federal Reserve Bulletin*, vol. xvi (1930), p. 796.

³ *Report of the Comptroller of the Currency* (1929), p. 123.

⁴ "Branch, Chain, and Group Banking," *Hearings Before the Committee on Banking and Currency, House of Representatives, 71st Cong., 2nd Sess., H. Res. 141, 1930*, pp. 110-111; hereafter cited *H. Res. 141*.

ment simultaneously. Should depositors lose confidence and demand immediate payment in full it would be necessary for the banks to call in their loans, many of which mature several months hence, and in a sense call a halt to industry in order to meet the demands of panicky depositors. Fortunately our credit mechanism relieves the strain on reserves to a much greater degree than formerly. Now credit facilities are available to all banks with eligible paper for rediscount.

Prior to the establishment of the Federal Reserve System, each bank was impelled by the law of self-preservation to fortify itself against possible "runs" by increasing its stock of gold. During periods of stress loans were called and deposits with other banks were withdrawn. Naturally such procedure by a single bank precipitated a general movement with its cumulative effect resulting in a mad scramble for gold which could not be suddenly increased in any considerable proportions. Suspensions were inevitable. The absence of cooperation with a concentration of reserves was responsible for such recurring experiences. Mutual destruction was unavoidable. A unified banking system, partially accomplished by the Federal Reserve System, increases the ratio of protection to business in proportion to the centralization of reserves.

Gold in the vaults of a single individual bank will liquidate debts equal to its par value only, but if it is held in the vaults of a central reserve agency of unquestioned integrity it will serve as the basis for the payment of a much larger sum. Federal reserve notes, issued by the Federal reserve banks in exchange for 40 per cent gold and 60 per cent eligible commercial paper, will, under such circumstances, cancel two and one half dollars of obligations for one dollar of gold deposited.¹

¹ Thomas Conway, Jr. and Ernest M. Patterson, *The Operation of the*

An understanding of the relation of reserves to clearing and collection does not require a detailed discussion of the subject of reserves. It is advisable, however, to point out the reserve requirements imposed by law in order to observe the conscious effort to concentrate them and thereby increase their mobility, efficiency, and basis for clearing operations.

Federal reserve banks are required by Section 16 of the Act to carry a gold reserve of 40 per cent against Federal reserve notes and 35 per cent in gold or lawful money against deposits. Of the 40 per cent, at least five per cent must be deposited with the Secretary of the Treasury in the Gold Redemption Fund. Against Federal reserve bank notes, issued up to the par value of government bonds having note-circulation privilege, a redemption fund of five per cent in lawful money must be maintained.

Member banks are also required under the Act to maintain reserves as follows:

RESERVE REQUIREMENTS OF MEMBER BANKS OF THE FEDERAL RESERVE SYSTEM

Location of Banks	Demand Deposits	Time Deposits
Central reserve city banks (New York and Chicago)	13%	3%
Reserve city banks	10	3
Country banks	7	3

Bank Act (Philadelphia, 1914), chaps. xx, xxii, xxiii, xxiv, xxv and xxvi; H. Parker Willis and George W. Edwards, *Banking and Business* (New York, 1922), chap. x; Spahr, *op. cit.*, chap. ix; Paul M. Warburg, "The Reserve Problem and the Future of the Federal Reserve System," *Proceedings of the American Bankers Association*, vol. xlii (1916), pp. 219-245; Harold L. Reed, *The Development of Federal Reserve Policy* (New York, 1922), chap. xi; Westerfield, *op. cit.*, chap. xxi; Willis and Steiner, *op. cit.*, chap. iii. *Infra*, p. 169.

The entire legal reserves against demand and time deposits must be carried with the Federal reserve banks. Formerly a substantial portion of the reserves could be carried in the bank's own vaults and the balance deposited with banks in reserve and central reserve cities where they served double duty, namely, as legal reserves and also for exchange purposes. Then, too, the depositing bank (country bank) received about two per cent interest. With the transfer of the reserves to the Federal reserve banks interest was no longer paid. Pierre Jay, in 1919, answered the protest of country banks against the non-payment of interest. He stated the situation in summary form.¹

1. *The Federal reserve banks do not and should not pay interest on deposits:*

- (a) To keep their liquidity and conserve their strength for sudden heavy demands which may be made upon them;
- (b) To maintain freedom of action effectively to stabilize credit conditions.

2. *The loss of interest formerly received by member banks on their reserve balances is offset by—*

- (a) Lowered reserve requirements;
- (b) Currency facilities; shipments to and from Federal reserve banks being made without cost to member banks;
- (c) Rediscount facilities; which thus far have usually been effected at somewhat less than rates charged by correspondent banks;
- (d) The feeling that, because of their membership in the Federal reserve system, banks are justified in lending and investing more closely than heretofore. This, when it may properly be availed of, is often the most important offset of all.

¹ *Journal of the American Bankers Association*, vol. xii (July, 1919-June, 1920), p. 73.

No mention is made of the benefits of the more scientific collection and transit system the Federal reserve banks conduct for their member banks, the very large cost of which is absorbed in their operating expenses, as this should perhaps be considered as a separate matter and as an offset to the loss of exchange through par remittances.

Country banks counted transit items as part of their reserves the moment they were placed in the mails although several days elapsed before the city correspondent bank could realize on them. The city correspondent was thus compelled to carry the "float." Under the existing system, time schedules prepared by each Federal reserve bank, with the approval of the Board, indicate the time required before the items may be counted as reserves or made available for checking purposes. Like the transfer of the entire reserves to the Federal reserve banks, the deferred availability of transit items invoked the vigorous protest of country bankers.

In order to enforce strict compliance with the requirement, the Act authorized the Board to prescribe penalties for violation. Accordingly, the Board ruled¹ that items could not be counted as part of reserves until such time as specified in the time schedule of the Federal reserve banks. Checks and drafts drawn by member banks are charged against their reserve balances, but if impairment of reserves results penalties are inflicted. Monthly assessments of 2 per cent per annum above the Federal reserve bank discount rate on 90-day commercial paper are imposed on deficiencies and in addition progressive penalties for prolonged deficiencies.

Member banks may build up their reserves by (1) discounting eligible commercial paper, (2) borrowing on their own notes secured by commercial paper, (3) sending collection items, and (4) sending gold and gold certificates. The

¹ "Regulation J, Series of 1924," *Federal Reserve Bulletin*, vol. x (1924), pp. 489-491.

Federal reserve banks may increase their reserves by (1) substituting Federal reserve notes for gold that is in circulation, (2) inducing members to keep larger reserves with them and (3) increasing the number of depositors by inducing more state banks to join.

The Act authorized the creation of a central reserve organization to care for the reserves of member banks, in so far as they were necessary to the establishment of a central banking mechanism, to provide the means of equalizing funds between institutions in different parts of the country, of clearing obligations, and of controlling rates of rediscount and the importation and exportation of gold.¹ The system now recognizes only one form of legal reserve, that of a member bank's deposit with its Federal reserve bank. Member banks may, however, keep as much in their tills as they deem necessary; they may also keep funds on deposit with other banks but neither the cash in their own vaults nor deposits with other banks is counted as part of their legal reserves.² Federal reserve banks utilize their gold stock to best advantage by issuing Federal reserve notes up to two and one half times the gold reserve, receiving the balance, 60 per cent, in eligible commercial paper. In fact, the member bank may give 100 per cent in commercial paper in exchange for Federal reserve notes, but in such an event the Federal reserve bank will be compelled to furnish and maintain gold equal to 40 per cent of the value of the notes.

The framers of the Act clearly recognized the distinction between the reserve function and the currency function of Federal reserve banks. Federal reserve notes were issued to member banks to be used for currency only, which caused

¹ H. Parker Willis, "Reserves Under the Federal Reserve System," *Trust Companies*, vol. xxix (1919), pp. 561-564.

² *Bank Reserves*, Letter No. 1, Federal Reserve Bank of Richmond (December, 1921), p. 3.

the demand for them to expand and contract in harmony with current public demand for currency. The notes cannot be counted as legal reserves nor are they vested with legal tender quality, but can be used instead of gold, gold certificates, and legal tender notes which the banks would be compelled to part with, and, in that way, serve as an effective substitute for gold. Member banks were authorized, however, to count as reserves, credit given them by their respective Federal reserve banks. The credit arises out of items sent for collection, rediscounting, borrowing on their own notes properly collateralized by commercial paper, or the shipment of gold or gold certificates. Had notes been vested with reserve quality there would have developed greater inflation because of the slowness of redemption.

Rediscounting and also the development of clearing and collection with satisfactory utilization of reserves are encouraged. It is obvious that the clearance and collection functions must be exercised in order to enable the reserve bank to build up its total funds as rapidly as they are dispensed, and to enable the member banks to get the advantage of readily using such funds. Reserve banks must stand ready to collect items of member banks in order to have the reserve balances useful, active, and efficient; otherwise the member banks will be compelled to resort to rediscounting or shipping of gold or eligible currency in order to maintain their reserve balances.¹

Balances may also be restored through use of the free telegraphic service between Federal reserve banks and their branches. A member bank may authorize its correspondent in a Federal reserve city to deposit with the Federal reserve

¹ H. Parker Willis, *The Federal Reserve—A Study of the Banking System of the United States* (New York, 1915), chap. xi, especially pp. 221, 238.

bank of that city, a sum for telegraphic transfer to the bank's credit with its own Federal reserve bank.¹

Nonmember banks have refused to join the system upon the assertion that the reserve requirements are onerous. They object to the requirement that their entire reserves be deposited with the Federal reserve banks and that no interest is paid. The deferred availability for reserve and checking purposes of the transit items is more exacting than State requirements. It is undoubtedly true, however, that the actual reserves carried by member banks in their own vaults as till money and with the reserve banks as legal reserves are considerably less than were found necessary prior to the establishment of the Federal Reserve System. Professor Tippetts² shows that membership in the system has been "responsible for a tremendous reduction in reserves for nonnational banks as well as for national banks." The average of total reserves against deposits carried by all state banks and trust companies for the five year period 1910-1914 was 23.4 per cent, whereas the average of all member state banks and trust companies for the five year period 1921-1925 was 14.68 per cent—a substantial reduction. The Federal Reserve Bank of Chicago³ found that during the period, June 30, 1914—June 30, 1922, the working reserves of national banks were reduced from 28.1 per cent in 1914 to 18.3 per cent in 1922; those of state member banks from 21.5 per cent to 14.8 per cent, and of nonmember banks from 21.5 per cent to 15.4 per cent. Cash in vault declined from 11.9 per cent of deposits to 2.0 per cent for

¹ "Symposium on the Federal Reserve System at the Boston Convention," *American Institute of Banking Bulletin*, vol. ii (July, 1920), p. 341.

² *Op. cit.*, pp. 177-183.

³ *Benefits to Bankers from Membership in the Federal Reserve System*, p. 18; pamphlet issued by Federal Reserve Bank of Chicago, August, 1924.

national banks, from 6.7 per cent to 1.5 per cent for member state banks, and from 6.7 per cent to 3.3 per cent for nonmembers. Nonmembers are enjoying the benefits of the system by the correspondent relations with members which has made possible reduction in their reserves almost equal to that of members.

The test of the advantage derived through membership in the system is not based so much on reserve requirements imposed by law but on the amount found necessary as a result of practical experience. State reserve requirements range from 15 to 20 per cent as compared with from 7 to 13 per cent on demand deposits under the Federal Reserve System. State banks are required to keep only about 6 per cent in their own vaults;¹ the balance may be deposited at interest with correspondents. The use of the "float" as reserves further lessens the apparent advantage enjoyed by members of the system. In the final analysis the actual reserves carried is the best test. Members and nonmembers alike have benefited from the maintenance with safety of lower reserves. It is unnecessary to join the system in order to secure the advantages of increased stability. The slightly greater amount of reserves actually carried by nonmembers is offset by interest received on reserves and the availability of the "float." In a number of states the laws do not permit state banks to substitute the Federal reserve for state requirements, which effectually prohibit their enrollment in the system.

CHARGES

More than forty years ago the country merchant who wished to pay for merchandise purchased in distant markets would go to his local bank and buy a draft on New York.

¹ *Of Service to Banks and Business*, pamphlet published by the Federal Reserve Board, September, 1923.

This draft was acceptable in any part of the country. As competition among manufacturers increased they accepted in lieu of New York drafts the checks of their customers. As a consequence the local banker was deprived of revenue derived from the sale of drafts. To offset this loss of revenue the drawee bank charged exchange on all checks returned to it from distant points.¹ It is this exchange charge that the country banks wish to retain and largely accounts for their opposition to the Federal reserve clearing and collecting system which seeks to eliminate the charge. There are collection charges still imposed in many instances to defray the expenses incident to collection, but the exchange charges are no longer imposed by members of the Federal Reserve System.

At first the Federal reserve banks imposed collection charges but in 1918,² the Board sent a circular letter to all the Federal reserve banks recommending the entire elimination of service charges on the collection of cash items received from member banks and from other Federal reserve banks, also on collection items between Federal reserve banks and their member banks, and that telegraphic transfers be bought and sold at par, each Federal reserve bank absorbing the expense, but that checks on other Federal reserve cities be taken at par, subject to deferred availability.³ The recommendations were justified on the basis of increased earnings of the reserve banks and also because of the desire to approach the ideal of a "free transfer of funds." Ac-

¹ Pierre Jay, *The Country Banker and the Federal Reserve System*, 64th Cong., 1st Sess., Sen. Doc. No. 458 (April 17, 1916), p. 8; "Par Collection of Checks," *Hearing Before the Committee on Banking and Currency of the House of Representatives on H. R. 12379*, 66th Cong., 1-3 Sess., 1919-1921, p. 3.

² *Federal Reserve Bulletin*, vol. iii (1917), p. 660; vol. iv (1918), p. 371.

³ *Ibid.*, vol. iv (1918), p. 371; *Annual Report of the Federal Reserve Board*, vol. v (1918), pp. 76-77.

cordingly, the charge was entirely removed and since 1918 the Federal reserve banks have collected without charge checks drawn on par-remitting banks.

Should the member banks send checks direct, in order to save time, to the drawee banks, whether national or state, arrangements were to be made between the banks involved as the Board could not prevent a reasonable charge as authorized in section 13. In some instances such charges are now made. Checks cleared through the Federal reserve banks, however, are not subject to exchange charges. The Board stated that the Hardwick amendment of June 21, 1917, clearly preserved the right of any member bank to make a reasonable charge against depositors or banks other than Federal reserve banks, not to exceed one-tenth of one per cent, for checks and drafts received for collection and remittance, the charge to be determined and regulated by the Board.¹ The Board ruled that this provision did not apply to the collection and remittance of maturing notes and bills. No bank should be required to remit at par for unmatured notes and bills, but were permitted to make reasonable charges to Federal reserve banks for such items sent for collection and remittance.² Cash items only were to be remitted for at par.

Charges have to do with the collection of items and not with exchange. For the former service Congress recognized the justice of a charge, but for the latter the Act was designed to make charges unnecessary. Prior to 1917, country banks maintained reserves with correspondent banks in reserve cities. These reserves served two main purposes; on the one hand, they were considered part of their legal reserves and, on the other, they could be used for exchange purposes. Banks charged for exchange as they claimed expenses were

¹ *Federal Reserve Bulletin*, vol. iii (1917), p. 663; *Federal Trade Information Service*, vol. xv, no. 34 (May 10, 1920), pp. 265-266.

² *Federal Reserve Bulletin*, vol. iii (1917), p. 662.

incurred in the transfer and maintenance of reserves for exchange purposes. The Federal Reserve System provided for the elimination of such charges by making possible a universal par clearance system under which any expense involved in the transfer of funds for exchange purposes would be borne by the Federal reserve banks.

The exchange-charging banks, almost invariably the country banks, defended their position on the claim that there is an extra cost involved in handling checks received through mail. Country bankers assert that their depositors now make settlement for distant purchases by means of checks, whereas years ago it was customary for them to buy drafts for which a charge was made. According to the country banker, the objections lie in the method of settlement. If the manufacturer or jobber receives checks in payment for goods he ought not to expect the purchasers' bank to make the fund available at his bank without cost. The bank recognizes the importance of serving its depositors but not distant business interests.¹

The country banker asserts that there is no such thing as par collection. There is an expense involved which must be absorbed by somebody.² Deferred availability also prevents par collection. A country banker cashes at par a check on a city bank which is then given to the Federal reserve bank which accepts it at par, but the country bank must wait several days before the amount of the check becomes available; hence, he argues, there cannot be par remittance. The confusion lies in the definition of terms. Under the Act, interest as well as clerical and other costs may be imposed, but are termed collection charges—not exchange

¹ "Par Collection of Checks," *Hearing Before the Committee on Banking and Currency of the House of Representatives on H. R. 12379*, 66th Cong., 1-3 Sess., 1919-1921, pp. 3-5, 29-30, 51-53 and *passim*.

² *Proceedings of American Bankers Association*, vol. xlii (1916), pp. 607-608, 638-652.

charges. The country banks maintain that it is necessary to express funds to the financial centers in order to provide for exchange and that they should be permitted to charge exchange to reimburse themselves. It is their contention that to do otherwise would relieve the city bank of the charges,—the banks that are best able to absorb them—and thereby take the profits of the small country banks and give them to the city banks. The country banks state that revenue from exchange charges is indispensable to their existence, that it constitutes not less than 25 per cent of their net income.¹ It is hardly logical to ask the city banks to maintain the small country banks, but rather should that responsibility be placed on the country depositors who receive the benefits.

The bank's obligation to its depositors, in the absence of specific agreement to the contrary, is to pay checks drawn on it only over its counter. If it pays elsewhere there will be trouble and expense involved which should be borne by the beneficiary. The drawee bank could either charge to the account of the depositor the stationery, postage, registry, expressage, insurance and clerk hire, or deduct the costs from the remittance.

The drawee bank has four ordinary ways of making provision for exchange:

1. Shipment of currency.
2. Borrowing from institutions in city of collecting bank.
3. Sending commercial paper for rediscount, or securities for sale.
4. Sending checks and collection items, payable in the collecting bank's city or vicinity, for collection and credit.

Under the Federal Reserve System the third and fourth methods are more likely to be used. If the first or last

¹ Henry Parker Willis, *The Federal Reserve System* (New York, 1923), p. 401.

method is used there will be little or no actual expense involved, which nullifies the excuse for charging exchange.¹ There is little currency shipped as the amount of checks drawn on the country bank is just about offset each day by the amount of out-of-town checks which it receives on deposit and sends to its collecting agents. Probably in 90 per cent of the cases the actual cost of remitting is nothing; yet the country bank charges for it as though currency was shipped.² There is, however, usually a substantial profit involved which the small country banks of the South and Middle-West are loath to sacrifice. Express and other costs were on the average from 40 to 50 cents per \$1000, whereas the exchange charge was usually \$1 per \$1,000 by banks, \$2 by express companies, and \$3 by the United States Post Office.³

An investigation revealed that there are more than 725,000,000 country checks aggregating more than thirty billion dollars handled annually by the banks in the United States. The average charge for exchange amounted to one dollar per thousand dollars—consisting of about 66⅔ cents for exchange proper and 33⅓ cents for administrative costs.⁴ Per item handling costs in the commercial banks amounted to 1.38 cents; in the country clearing houses .7 cents and in the Federal reserve banks, 1.5 cents.⁵

¹ Westerfield, *op. cit.*, pp. 491-492.

² Pierre Jay, *The Country Bankers and the Federal Reserve System*, 64th Sess., 1st Sess., Sen. Doc. No. 458 (April 17, 1918), p. 9.

³ William H. Kniffin, *American Banking Practice* (New York, 1921), p. 113; *House Hearings*, 66th Cong., 1-3 Sess., 1919-1921, *loc. cit.*, pp. 32-33; *Federal Trade Information Service*, vol. xv, no. 25 (April 29, 1920), p. 193; no. 15 (April 17, 1920), p. 113; *H. Res. 141*, pp. 768-776.

⁴ J. Elwood Cox, "Federal Reserve Clearing and Collection System," *Proceedings of the American Bankers Association*, vol. xliii (1917), p. 612; *Journal of the American Bankers Association*, vol. ix (1917), p. 552.

⁵ *Proceedings*, *loc. cit.*, p. 613; but see *Annual Report of the Federal Re-*

It should be clearly borne in mind that par collection does not mean that the depositor of a check which is left for collection will receive its face value. The par clearance provisions of the Act did not contemplate that the bank of deposit may not charge for collecting items; this is true even though both banks involved are members of the Federal Reserve System. Such charges may be made not only by par clearance banks, both national and state, but also by the Federal reserve banks.¹ Section 16 authorizes the Federal Reserve Board to fix the charges to be collected by the member banks from its patrons and also the charge which may be imposed for the service of collection rendered by the Federal reserve bank.² If the customer deposits checks which require one or more days to collect through a Federal reserve bank, he is entitled to deferred credit only, dependent on the time involved, but should he seek immediate credit in funds available for checking purposes, he should pay for the privilege an amount equal to the interest involved.

Exchange charges were deducted with the utmost regularity despite the fact that in practice the country banks settled in exchange, on the large financial centers, which was created through the deposit of collection items but for which they received credit at par. This practice of offsetting incoming items by outgoing items was perhaps the most economical method, but it obviated the necessity of currency shipment, hence the injustice of the exchange charge which varied from 1/40 to as much as 1/8 of one per cent.

The present collection system, through the absorption of shipping costs, places the country banks in a position of being able to pay checks drawn on them as if presented over
serve Board, vol. iii (1916), p. 11, which gives the average per item cost of 1.01 cents for the Federal reserve banks.

¹ *Federal Reserve Bulletin*, vol. ix (1923), p. 790.

² *The Federal Reserve Act*, p. 40.

their own counters with the additional advantage of being able to pay in drafts if they so desire. Banks which charge exchange penalize the payee instead of the payer. Exchange service is rendered for the debtor; he should bear the costs. Banks should watch more carefully the size of their customers' deposits which should be sufficiently large to pay for carrying, so as to reimburse them for such services rendered rather than to seek reimbursement from the payee who is entitled to par remittance. There is no longer justification for exchange charges because the Federal reserve banks pay all costs of shipping currency for exchange purposes.

CITY CLEARINGS

The clearing principle described in the introductory chapter is conveniently applied by banks for clearing items drawn on local banks. Usually, if there are four or more banks in the community, they organize a clearing association (there are about 400 in the United States) which provides facilities for offsetting admissible items and settlement therefor. As shown below, settlement may be made in different ways.

Items Cleared

In New York, cash items, such as checks, clean sight drafts and bills of exchange, payable by members and by other banks which clear through members, are eligible for clearing. Notes and acceptances drawn upon or payable at clearing house banks may also be cleared if presented in the morning clearings on their maturity dates. Should the items bear qualified or restrictive indorsements they are not eligible unless all indorsements are guaranteed by the member of the Association sending such items. The banks must also guarantee all previous indorsements and acknowledge

receipt of payment from the Clearing House for all items cleared. This requirement obviates the necessity of examining the indorsement of each item at the time of clearing.¹

CITY COLLECTIONS

Not all items are eligible for clearing which necessitates the creation of other labor-saving devices for their collection. For that purpose, the New York Clearing House Association in 1917 inaugurated a city collection department with messenger service to collect non-clearing items. A list was prepared of banks, bankers, merchants, insurance, railroad and other companies in the district below 59th Street which agreed to have checks and drafts drawn on them presented for payment by the messenger service. The items must be delivered, in sealed packages properly labeled, to the Clearing House at ten o'clock each morning. They are then assorted according to route and presented to the drawee before 10:30 o'clock. Payment by cash or certified check must be made before 1:30 o'clock. Checks pass through the clearings the following morning. This arrangement reduces the messenger service of each bank and also minimizes the number of payments by drawees.²

Since March, 1919, the Federal Reserve Bank of New York has operated a clearing division which collects for members or others who arrange with members, non-clearing items in the district embracing Brooklyn, Manhattan and Bronx. Items presented before nine in the morning are credited to the account of the member the same day. The

¹ *Constitution of New York Clearing House Association, as adopted September 24, 1908, with amendments to 1927, pp. 14, 16, 35-36, hereafter cited Constitution.* No attempt is made to duplicate the exhaustive description of the New York Clearing House Association operations by Dr. Spahr. See *op. cit.*, chaps. x, xi.

² Westerfield, *op. cit.*, pp. 476-477; Spahr, *op. cit.*, pp. 408-410; Foster, *op. cit.*, pp. 162-164.

system is similar to that of the Clearing House. In addition to the clearing division, the Federal Reserve Bank collects items by messenger from banks or concerns not members of the Clearing House, City Collection Department, or Federal Clearing Division, in Greater New York. Items are paid the same day, usually by certified check. Thus, members of the Clearing House and the Federal Reserve Bank may collect through the Clearing House, the Federal Reserve Bank, or by their own messenger service. The latter method may be used when a special report is desired by the sender of the collection item who desires to learn its fate as quickly as possible.

CLEARING AND COLLECTING OUT-OF-TOWN CHECKS

Although there were many vexing problems in effecting settlements between banks in the same city, yet when the same banks received checks drawn on out-of-town or country banks their problems were materially increased. In such instances it became necessary to return the transit and collection ¹ items to the drawee banks. Owing to legal complications ² and the desire to avoid remittance charges banks usually sent the items to their correspondents rather than directly to the banks on which they were drawn. This gave rise to circuitous routing.

Banks in large financial and commercial centers entered into reciprocal arrangements whereby they agreed to receive items for collection and to remit without charge. It was necessary, however, to make different arrangements with the country banks. The privilege accorded them under the National Bank Act to carry part of their reserves with the

¹ Transit items are given immediate credit and consist exclusively of checks, whereas collection items are received for collection, credit being deferred until collection is actually made.

² Spahr, *op. cit.*, pp. 103-104, but see *Proceedings of American Bankers Association* (1909), Clearing House Section, pp. 25-26, 42.

national banks in the larger centers stimulated keen competition among city banks for these deposits, hence special inducements were offered without calculating costs, which resulted at times in actual losses. Not only did the city banks pay interest on such balances, but they also collected without charge for the country banks and at the same time submitted to charges for their items collected by the same banks. Supposedly the return on the balances carried with the city institutions were sufficient to warrant such arrangements.¹

Before the establishment of the Federal reserve collection system country checks were collected either by the clearing house method or by the correspondent bank method. The former method was used by the clearing houses to collect for their members if the items were drawn on certain banks. In the effort to secure deposits the banks in the large financial centers charged little or nothing for collecting.² The New York Clearing House Association, however, prescribed definite charges to be imposed by its members, at the time of deposit or not later than the tenth day of the following calendar month.³ The rules contemplated the charging of collection rates on all out-of-town items⁴ with the exception of items deposited by or collected for the account of the Governments of the United States, the State of New York, or the City of New York.⁵ A schedule of charges was prepared, based on the time required to collect and remit.

¹ Spahr, *op. cit.*, pp. 110-111, 113-117; *Bankers' Magazine*, vol. iv (1897), pp. 578-579; vol. lxvii (1903), pp. 988-1002, in which is recorded an interesting debate on the subject, "Resolved, That the collection of country checks at par is contrary to general business principles."

² *Bankers' Magazine*, vol. lxvii (1903), pp. 998-1002, *passim*; Spahr, *op. cit.*, p. 418.

³ *Constitution, loc. cit.*, p. 27.

⁴ *Ibid.*, p. 29.

⁵ *Ibid.*, p. 24.

Certain cities were designated "discretionary points" which made charges there optional. For the balance of the country charges were imposed ranging from 1/40 of one per cent to as much as 1/10 of one per cent. Prior to 1921 the maximum rate was 1/4 of one per cent.¹

The clearing-house method has been used in various sections of the country. Not unlike the lethargy of American bankers in the establishment of city clearing houses, which had been in operation for many years in London, the inauguration of country clearings lagged behind that of England where several were in successful operation. It was on November 3, 1858, that the English bankers commenced the clearing of country items through the London Clearing House,² but not until 1875 was such a plan put into operation in the United States. In that year it is said Pittsburgh commenced clearings which it continued without stated rules or agreement for about ten years.³ Perhaps credit for the successful establishment and operation of the first country clearing house in America is due the five banks of Sedalia, Missouri, which organized their clearing system presumably in 1895.⁴

On June 8, 1899, after having been opposed by a minority of banks for about twenty-two years, clearing of out-of-town checks began at the Boston Clearing House, the manager receiving checks for collection on two hundred Massachusetts banks, all, except less than twenty, remitting at par.⁵ Other states were soon added and by 1900 practically all of

¹ *Constitution, loc. cit.*, pp. 25-27; *Proceedings of American Bankers Association* (1919), p. 440; but see Spahr, *op. cit.*, pp. 72, 102, 103, for earlier charges.

² Hallock, *op. cit.*, p. 29.

³ *Ibid.*, p. 47; but see *Proceedings of the American Bankers Association* (1906), p. 104.

⁴ *Proceedings, loc. cit.*, p. 45.

⁵ Hallock, *op. cit.*, pp. 57-58.

the New England banks were included in the system. Seventy-two banks of a total of 624 outside of Boston refused to remit at par, but about 97 per cent of out-of-town checks passed through the clearing house, although not all were paid in full.¹

Instead of following the wholesome example of the New England bankers in effecting clearing and settlements with minimum costs and placing all country banks which were willing to remit at par on the par list against the checks of which no exchange charges should be made, the bankers of New York City in 1899 established a system of charges designed to discourage the use of checks outside of the local territory of the drawee banks. Bank officers asserted that it took from one to two weeks to realize the cash on out-of-town checks, and that in many cases the country banks charged the one-tenth to one-fourth of one per cent which the city banks charged their customers. Where interest was paid on daily balances, the interest credited to the country banks on out-of-town checks, in the process of collection more than offset the collection charge, especially with small accounts where the checks were drawn against long before the collecting bank received the cash.² The collection charges imposed by New York City bankers discouraged the use of the city as a collection center; consequently circuitous routing followed. Checks for collection which formerly came to New York City were sent to Albany, Boston and Philadelphia to avoid collection charges.

There was little economic justification for this procedure. Under the Boston system the use of checks was encouraged upon the theory that increased deposits would result, as was the theory in Belgium and Germany.³ The New York bank-

¹ Hallock, *op. cit.*, pp. 61-69, chap. vi.

² *Bankers Magazine*, vol. lxxvii, p. 712.

³ *Ibid.*, vol. lxxvi, pp. 10-11.

ers estimated that it took six days to collect checks drawn on New York and New Jersey banks, which cost \$1.66 per \$1,000, of which interest at four per cent amounted to 66 cents. The country bankers were slow to remit as the delay gave longer use of the funds. They were inclined to exact charges in excess of that set by the New York banks. The adoption of country clearings in New England reduced the cash costs to five cents per \$1,000 and the interest costs under comparable conditions to 22 cents per \$1,000, a difference of \$1.39 or 84 per cent.¹

It was impractical in New York where country checks were received from distant points to adopt a plan which contemplated full credit for deposits of country checks. The time element was a factor to be considered. Had the New York bank credited the depositor for the face amount and permitted immediate availability for checking purposes it would have been without the use of the funds during the interval between the date of deposit and the actual receipt of cash. The time element, under such conditions, mitigates against full credit and will not, therefore, allow checks to circulate throughout the country at par, as is true of bank notes. It must also be borne in mind that a check is not a promise to pay by the bank, but is a request by a depositor to the bank to pay out of the funds credited to his account and consequently is not as safe as the bank note. Banks recognize such requests only when the depositor has sufficient funds to his credit. The establishment of country clearing houses minimized the delay involved in collection and remittance and increased general confidence, which caused the checks to circulate approximately at par. In a small contiguous territory like New England close proximity to par could be realized, but in larger areas interest deductions based on the time required to receive available funds

¹ Hallock, *op. cit.*, pp. 113-117; *Proceedings of the American Bankers Association* (1911), pp. 711-717.

were made. Either the funds should not be made available for checking until cash has been received or interest for the elapsed time should be charged.

Either country clearing houses or departments of city clearing houses have been established in many sections of the country. Kansas City, Mo., in 1905 established a country clearing department patterned after that of Boston.¹ During the first five years of operation total costs per hundred dollars was reduced from 26.57 cents to 12.8 cents.² In 1909, Atlanta, Ga. organized a country clearing department, also similar to that in Boston.³ Other country clearing houses were organized until there were fourteen in 1916,⁴ but the Federal reserve banks have superseded them. In their stead the bankers in restricted areas have, in a few instances, formed county clearing houses for the purpose of sending collection items directly to drawee banks but collecting through the Federal reserve banks. So far the author understands these activities are confined to the First, Second and Third Federal Reserve Districts.

SPEEDING UP COUNTY CLEARINGS

In the Second Federal Reserve District the county bankers, observing an unnecessary delay of about two days in the collection and remittance of items on banks in the same or neighboring counties, made arrangements with the Federal Reserve Bank of New York to act as settling agent for all the banks which were willing to remit immediately. Formerly the checks were sent by the member banks to the

¹ *Proceedings of American Bankers Association* (1916), *loc. cit.*, p. 538.

² *Proceedings of American Bankers Association* (1909), Clearing House Section, p. 41.

³ *Ibid.*, p. 42.

⁴ *Ibid.* (1916), p. 469. These clearing houses should be distinguished from the regional clearing houses (less than 50) which have been organized within the last 5 years. Their three chief objectives are: (1) Make banking safer, (2) Expedite all phases of banking business and (3) Eliminate all forms of loss.

Federal Reserve Bank of New York which forwarded them direct to the drawee banks. These banks advised the Reserve Bank by telegraph of collection or of non-payment, but usually three days elapsed before the receiving bank received the advice of non-payment even though the drawee bank was only a few miles distant. The new arrangement, designed to expedite clearing and collection of county checks, was inaugurated in March, 1921, and has since spread to twenty-three counties in New York and also to the First and Third Federal Reserve Districts.

Each bank sends cash letters to the other participating banks and on a specially prepared form supplied by the Federal Reserve Bank of New York it records opposite the names of the various banks the amount of the checks sent which it forwards to the Federal Reserve Bank requesting credit to its reserve account for the total amount. The Reserve Bank credits the account of the sending bank and sends out "Debit Advices" to the other participating drawee banks informing them of the charges to their accounts. The participating banks are asked to check the charges against the cash letters received directly from the sending banks.

By this method overnight clearings have been established. There is more labor and expense involved but these are offset by more expeditious service to depositors. Separate letters are sent to each drawee bank by the sending banks, whereas formerly one letter containing all of the checks was sent to the Reserve Bank. Letters are sent only when the volume of checks on a bank warrant, but advices are sent daily to the Reserve Bank in order to maintain accurate records. When it is realized that the sending bank must maintain legal reserves against the items in process of collection, the advantage of overnight clearings over the former method requiring three days is apparent.¹

¹ *American Bankers Association Journal*, vol. xix (July, 1926-June, 1927), p. 563.

SETTLEMENT OF BALANCES

After the delivery clerks from the various associated banks have made their deliveries, at the Clearing House, of clearing items to the settling clerks of the drawee banks, the exchange of items is completed, but the process of clearing is not completed until the balances are settled. Several plans are being used to settle clearing house balances. Since the creation of the Federal Reserve System the method of settlement in the larger cities has been simplified.

Inasmuch as member banks are required by law to maintain balances with their respective Federal reserve banks, there are balances against which the associated banks may draw to settle adverse clearing-house balances. A simple plan of settlement has been established where this condition obtains. In New York City, for instance, arrangements have been made whereby the Federal Reserve Bank of New York, upon authorization of the clearing house manager who sends a certified list of the day's balances, debits or credits the accounts of the clearing banks. Nonmembers of the Federal Reserve System are required to maintain balances sufficient to meet all unfavorable clearing house balances. By this method balances involving many millions of dollars are settled by bookkeeping entries, which render unnecessary the actual transfer of a single dollar. Banks must see to it that their balances are adequate, while member banks must maintain such a balance in excess of their reserve requirements as prescribed by law. The associated banks make the entries opposite to those of the Federal Reserve Bank in their "Lawful Reserve with the Federal Reserve Bank" account.¹ This method of settlement, which has also been adopted in Boston, San Francisco, Los An-

¹ Foster, *op. cit.*, pp. 154-159; Spahr, *op. cit.*, pp. 402-406; Westerfield, *op. cit.*, pp. 468-476.

ges, Spokane, Seattle, Portland, Buffalo, Newark and other cities, reduces the risk and inconvenience of carrying large sums of money through the streets and also encourages the maintenance of larger reserves with the Federal reserve banks rather than in the vaults of the member banks.

Several devices for settling balances are in use. Any kind of currency is used to settle balances in many clearing houses; others insist on gold; some use any kind of money, but place a limitation on the amount of silver and subsidiary coins; clearing house manager's checks in which a draft is drawn on the debtor bank payable to the creditor bank are used by many clearing houses; formerly in Boston the debtor banks borrowed from the creditor banks to settle unfavorable balances, paying current interest rates on the loans; at times clearing house gold-, gold currency-, legal tender-, silver-, and loan-certificates issued against deposits of commercial paper, have been used. In the small clearing houses the prevailing method is to settle by drafts drawn on the banks in large financial centers, especially on New York banks.

DEFERRED AVAILABILITY

It will be recalled that collection items are credited by the Federal reserve banks to the accounts of depositing member or nonmember clearing banks, but that the funds are not available for checking purposes or use as legal reserves until payment is actually received. The old evil of carrying the "float" as legal reserve and using it for checking purposes is practically eliminated through the development of the deferred availability principle, which was introduced by the Federal Reserve Board July 15, 1916, at the inauguration of the compulsory collection system. Member banks no longer experience the difficulty of determining the status of their reserves with their Federal reserve banks and the reserve

banks, in turn, no longer carry the large "float" which inevitably accumulated under the voluntary system under which immediate debits and credits to member bank accounts were made. The "float" is thus passed on to the depositors, where it belongs. The reserve account of a member or clearing nonmember bank is not charged until the lapse of prescribed time, as found necessary for the drawee bank to receive the items, to advise of payment or to return unpaid checks.¹ The time required before funds become available is based upon the mail time required for items to reach the paying bank plus the mail time required for the paying bank to remit to the Federal reserve bank or clearing branch of its district.²

Upon receipt of advice of payment or according to the time schedule of interdistrict items, the funds are transferred by use of the leased wire system and the Gold Settlement Fund from the district of the drawee bank to the district of the payee bank. If the items are intradistrict, availability depends upon a time schedule based on the average time required to collect the items in that particular section. This is also true of branches within a district. Under such circumstances funds may become available to the member or non-member clearing banks before the Federal reserve bank or its branch receives payment, as in some instances the actual time required is more than the average. The "float" which results must then be carried by the Federal reserve bank. No item is received for collection unless collectible at par.

¹ *Some Collection Problems*, Letter No. 15, Federal Reserve Bank of Richmond (March, 1924), pp. 2-3; *Annual Report of the Federal Reserve Board*, vol. iii (1916), p. 10; "Regulation J, Series 1930," Sec. IV, *Federal Reserve Bulletin*, vol. xvi (1930), p. 524.

² *Annual Report of the Federal Reserve Board*, vol. iii (1916), pp. 232-233.

The Federal reserve districts publish time schedules which show the time required before the funds will become available.¹ The schedule of each Federal reserve bank is divided into sections, the first section indicating the area from which items will be credited and become available immediately upon receipt by the Federal reserve bank, the second section embracing the territory from which items will become available one day after receipt, etc. These schedules are used not only by member and clearing nonmember banks, but also by customers of members.

INTERBRANCH CLEARINGS

Consideration thus far has been given to the clearing and collection of checks deposited in banks other than the drawees. Banks operating branches in the same or different cities have additional problems, as was shown in the Canadian system. Methods of clearing and collecting somewhat similar to the procedure in Canada have been devised by large American banks, but there are sufficient variations to warrant a brief description of the procedure. Among the banks having the largest number of branches, the one operating branches throughout the State of California, the other confining its operations to Greater New York City, are respectively the Bank of Italy National Trust and Savings Association and the National City Bank. A brief description of the methods employed by each institution will suffice to show the great similarity in method and also to indicate the expeditious manner in which checks are cleared and returned for immediate charge against the drawees' accounts.

¹ *Federal Reserve Inter-District Collection System* (July 1, 1917), pp. 81-94.

BANK OF ITALY

The twenty branches of the Bank of Italy in San Francisco, all of which come under the jurisdiction of the local clearing house, sort to the head office all their clearing items, which are rerouted to each branch. To accept the clearings for twenty separate divisions and deliver them to the various branches, and to have all these items paid and all go-backs or reclamations returned to the clearing house inside of two hours, seems almost a physical impossibility when it is realized that the average number of clearing items received in an average day is more than 15,000. The Bank of Italy secured the cooperation of the independent banks so that the checks of its three largest branches are sorted separately and the other seventeen placed together. The four separate sortings are expedited by the use of checks of different colors for each group.

CLEARING THE CHECKS

Messengers from each of the three largest branches meet at the clearing house where they receive immediately the items for their particular branches sub-totaled on their respective envelopes charging them with the amount of the items enclosed. The package containing checks for the seventeen miscellaneous branches is taken to the head office, and the checks are proved in, listed on cash letters, and dispatched by motorcycle messengers direct to all the branches; each motorcycle messenger covering three branches in a single section of the city. The messenger delivers the clearings direct to the bookkeepers, by whom they are immediately sorted alphabetically and paid against the ledger, not by posting, but merely by comparing the balance on the ledger sheet. Time is insufficient for the bookkeeper to post the items on his ledger, for the messenger who delivers the clearing items to the three branches waits only fifteen or twenty

minutes at the branch last on his route. Comparison is made with the ledger and all bad checks are rejected. These must be described and listed on a returned items letter and handed to the same messenger who delivered the items. The messenger on his return to the head office picks up the go-backs from the other two branches. The returned items from the three branches are delivered immediately to the reclamation clerk in the head office who prepares them for the final reclamation exchange at the clearing house at 1:30 p. m. daily. Items other than clearings are handled with the branches directly by means of cash letters.

Items originating at the branches are forwarded to the head office for collection with the understanding that the head office acts as parent bank in the handling of all collections, all transit items, and all intercity branch checks. Formerly each branch was handled separately, a plan which required each branch to handle its own collections, make up its own transit letters, and effect payment on all other interbranch items. Now a central transit department and a city and county collection department receive each day all items deposited with the branches. This centralization not only renders quicker service to clients, but it has resulted in substantial savings in labor and equipment. The checks accompanied by duplicate proof sheets pour into the head office from the branches in a steady stream all day by the continual motorcycle service. At the conclusion of each day's business, one cash letter is sent in to the head office from each branch, on which are listed the totals of collections and transit items.¹

In Cleveland, checks drawn on a bank with branches are

¹ R. J. Barbieri, "Interbranch Check Clearings," *Proceedings of Departmental Conferences held at Dallas Convention, American Institute of Banking*, July, 1926, pp. 268-270. Mr. Barbieri is Ass't Cashier of the Bank of Italy and has been in actual charge of interbranch clearings of the bank for several years.

sorted into two batches by the other member banks of the clearing house—one batch contains the checks drawn on the main office and the other contains checks drawn on its several branches. This method reduced the number of sortings in Cleveland from 111 to 14.¹

NATIONAL CITY BANK

The National City Bank with its 53 branches strategically situated to accommodate customers in all parts of New York City, has the problem of clearing approximately 100,000 interbranch and main office items received each day. The items are gathered and delivered by messengers. Owing to traffic conditions the messengers, on hourly schedule, use the subway rather than surface vehicular traffic.

Clearing of Interbranch Checks

At the head office the clearance clerk "ties in" all the branches in Greater New York with the head office and with each other. Checks on other branches are sorted by the receiving teller at each branch and forwarded with a debit envelope to the head office where they are assembled with checks from other branches and then forwarded to the respective paying branches. The clearance clerk at the head office charges each paying branch with checks drawn on it and credits the branches which forwarded them.

Any check to be sent during the day to another branch must be in the head office not later than 3 p. m. on regular days and 1 p. m. on Saturday. The branches are connected by direct wire with the head office which permits an immediate check-up on any questionable item and also facilitates interbranch communication. Returned checks must be in the head office at 2:30 p. m. to be presented at the New York Clearing House at 3 p. m.

¹ T. J. Champion, "Branch Bank Clearings," *Proceedings of Departmental Conferences held at Philadelphia Convention, American Institute of Banking*, June, 1928, pp. 297-300; see also pp. 289 *et seq.*

Incoming Clearings

The first clearing is held at 2 a. m. at the New York Clearing House. Messengers from the various member banks deliver outgoing clearings and pick up incoming clearings. The incoming clearings are brought to the head office where they are broken down into the various drawee branches and the head office. The items of the latter are then split up into various subdivisions, such as the alphabetical arrangement of depositors' checks according to the ledgers and general ledger accounts (such as cashier's checks, certificates of deposit, margin certificates, certified checks), and foreign account ledgers including such items as checks drawn by foreign depositors of the National City Bank and checks drawn by the bank's foreign branches.

When the incoming checks drawn on the various branches are finally proved, by the block system, they are ready for delivery to the branches. Each branch sends its messenger for the checks drawn on it in time to reach the branch at 9 a. m. for the bookkeepers who arrive at that time. The first clearing at the Clearing House is at 2 a. m., the next is at 8 a. m., and the next at 9 a. m. The last two clearings, unlike the 2 a. m. clearing, are not compulsory, but are arranged for the convenience of a few large member banks. The final clearing for incoming items is at 10 a. m. The same class of items is received at all four clearings.

Outgoing Clearings

Each branch sorts checks into the following groups:

1. New York Clearing House.

Items on banks with clearing house numbers 1-45, 65-103, and 104-126.

2. New York Federals.

Banks domiciled in New York City and which clear through the Federal Reserve Bank of New York instead

of the Clearing House, when the drawee banks are also domiciled in New York City.

3. Brooklyn Federals.

Banks domiciled in Brooklyn and clear through the Federal Reserve Bank of New York, but are not members of the New York Clearing House.

4. Checks drawn on country banks.

Banks outside of Greater New York City.

5. Items drawn on various firms, individuals and banks which do not clear through either the Clearing House or the Federal Reserve Bank.

6. Checks drawn on the head office of the National City Bank.

7. Checks drawn on domestic branches.

The outgoing clearings on members of the New York Clearing House are sorted by the "assembly rack" of the night force, which begins work at 6 p. m., which sorts the items into drawee banks in preparation for the 2 a. m. clearings. The night force transit department handles numbers 2, 3, 4 and 5 as shown above. Items number 2 and 3 must be at the Federal Reserve Bank at 9 a. m. in order to secure immediate availability, otherwise there is one day's delay. Wherever possible, checks drawn on out-of-town banks are collected through the various Federal reserve banks. When a Federal reserve bank does not operate in a particular territory the items are collected through correspondents. Items in number 5 are collected by National City Bank messengers with the exception of those drawn on firms whose names appear on the list compiled by the City Collection Department of the New York Clearing House. Such items, which are collected by the Clearing House, are sorted according to the drawee. Items in numbers 6 and 7 are handled by the night force domestic books. They are sorted in the same manner as the incoming exchanges of the Clearing House.

Documentary drafts, insurance policies, coupons, and the

like cannot be cleared, hence are collected by messenger. Several important banks and paying agencies have an arrangement for clearing coupons. This clearing occurs at the New York Clearing House, although not under its jurisdiction, at 9: 10 a. m.¹

SUMMARY

Circuitous routing of checks, pyramiding and decentralization of reserves, excessive exchange and collection charges, —all characteristics of the correspondent system so long extant in the United States—placed excessive burdens upon trade and industry. After years of wanton indifference Congress was sufficiently aroused in 1913 to enact a law which was designed to correct some of our major banking evils, among which were the objectionable methods employed in the clearing and collection procedure. The inauguration and supervision of the clearing and collection system taxed to the limit the banking and political sagacity of the Federal Reserve Board, upon whom the responsibility for the establishment of an efficient system devolved.

The system adopted provided for the unification of the procedure to embrace all the banks of the country. Banks were to remit at par for all checks drawn on them whether presented over the counter or by post. Collection charges sufficient to cover costs were still permitted. The Gold Settlement Fund was provided to facilitate exchanges and any expense incident to the actual transfer of funds was to be borne by the Federal reserve banks. Need for exchange charges formerly imposed by the banks was thus removed. Many banks, especially the small country bank, depended for a rather substantial part of their income upon such charges, hence they stubbornly resisted the inauguration of a system which would materially reduce their revenues. Bitter oppo-

¹ Interview with an official of the National City Bank.

sition was encountered by the Federal reserve banks in their attempts to induce—coerce—these recalcitrant banks to conform. With every effort of the Board to extend the system the intensity of the opposition increased. The refractory banks organized associations and even obtained the aid of state legislatures to combat encroachments upon what they regarded their business rights. The controversy finally culminated in a series of legislative enactments by several states to restrict the system.

Concentration of reserves under a unified banking system not only increases the effectiveness in the protection of currency but also facilitates clearing operations. Canada created a central clearing fund for the purpose; the Federal Reserve System established the Gold Settlement Fund; while in Germany and England the central banks as reserve depositories perform a similar function. Consideration of the part played by central banks in clearings and collections shows the convenience of such arrangements, to a study of which the following chapter is devoted.

CHAPTER VI

CLEARINGS AND CENTRAL BANKING

GENERAL

THE exigencies of war and the financial rehabilitation subsequent thereto have given a new impetus to central banking. Since the World War, fully one-third of existing central banks were established. History of the establishment of central banking institutions shows the close relationship between them and government fiscal operations. Increased powers, at times, were acquired by the banks under duress. The historical development of the Bank of England, for example, was inseparably connected with government financing. Its creation was the outgrowth of England's difficulty to finance her war with France. In exchange for a £1,200,000 loan the government granted the Bank power to conduct a banking business. There is little evidence that the government intended to establish a central bank to act as its fiscal agent, yet additional powers were conferred from time to time, usually in times of financial embarrassment of the government when additional loans were negotiated, until the Bank of England emerged a full-fledged central bank.

Too frequently governments have imposed excessive burdens on their central banks. Enforced note issues and State loans have at various times weakened the financial arch of the whole banking structure. Inflation with attendant evils were inevitable. Some of the central banks during the war period were virtual printing presses, the amount of the issues being dependent on the speed of operation. Reserves were attenuated to the point of relative extinction.

This condition is exemplified in Germany, Russia, Austria and Hungary where local currencies became practically valueless.

There has been the constant fear of government control of central banks. Australia exemplifies this concern as evidenced by the vigorous parliamentary debates in 1924, when amendments to the Commonwealth Bank Act were being considered.¹ Referring to the unwise measures of Pitt in securing the passage of a bill in 1793, which placed no limitation on the amount of advances by the Bank of England to the government, Professor Andréadès said, "No government had ever had such a formidable weapon placed in its hands. The Act allowed the Bank to be drawn upon without any restriction, for the directors dared not dishonour the Government drafts. Henceforward the Bank was completely at Pitt's mercy and he made large demands on the resources this placed at his disposal."² The Bank of France, the Reichsbank and other central institutions with their enormous emissions demanded by their governments afford examples of inflation caused by the recent war financing. Pre-war statutory provisions favored government control of central banks, but the bitter experiences of the war showed the extreme danger of such control. Recognizing the evils of State control, the Brussels International Financial Conference³ resolved that, "*Banks and especially Banks of issue, should be freed from political pressure and should be conducted solely on the lines of prudent finance.*" Examination of statutes creating the central banks in Austria and Hungary, prepared under direction of the League of Na-

¹ Commonwealth of Australia, *Parliamentary Debates*, 14-15 George V, vol. 107, 19th June to 1st August, 1924.

² B. Andréadès, *History of the Bank of England*, English edition (London, 1909), pt. iv, chap. iii, p. 191.

³ *International Financial Conference*, Brussels, 1920, vol. i, Resolution III, p. 18.

tions, indicates their independence of the governments.¹ The financial Committee of the League of Nations drafted statute proposals of similar character for the Bank of Greece and the Bank of Estonia.² The Bank of England and the Reichsbank are also examples of central institutions which are independent of their governments. Professor Willis maintains that there still exists too much government interference.³

Despite the many objections which have been advanced against central banks, especially those under government control, their number has increased considerably within the past decade. Of a total of thirty-four central banks enumerated by the Federal Reserve Board⁴ more than one-third were established since the World War. Of this number nine were established subsequent to the recommendation of the International Financial Conference, "that in countries where there is no central bank of issue, one should be established."⁵ In addition to the creation of central banks in recent years, changes have been made in many old institutions, such, as the Reichsbank, Bank of Norway and the National Bank of Belgium.

The establishment of the new banks and the overhauling of the old constituted part of a plan for the stabilization of the currency and the prevention of inflation.⁶ It has gen-

¹ Articles 45, 46, 47 and 50 of Austrian National Bank Act, 1926; also same Articles in Hungarian National Bank Act, 1924.

² Articles 3, 45-49, 50, 55, 73 of the Draft Statutes of the Bank of Greece and Articles 37, 44-46, 48 of the Bank of Estonia.

³ Willis and Beckhart, *op. cit.*, pp. 13-15.

⁴ *Federal Reserve Bulletin*, vol. xiv (1928), p. 563.

⁵ *International Financial Conference*, "Proceedings of the Conference," vol. i (League of Nations, Brussels, 1920), p. 9.

⁶ Cecil H. Kisch and W. A. Elkin, *Central Banks, A Study of the Constitutions of Banks of Issue, with an Analysis of Representative Charters* (London, 1928), p. 2.

erally been recognized that the stability of currency is more easily maintained when it is convertible into gold. Temptation to inflation is largely removed when gold reserves are required. If gold is desirable then it follows that it should be obtained and conserved. Central institutions in which this universal standard can be mobilized are the logical outgrowth. International balances, under existing conditions, must be paid in gold. Metal imports and exports need not be controlled by a central institution under usual conditions, but the demoralization of currencies and monetary parities made necessary restrictions in the international flow of gold.¹ The return to a stabilized currency renders imperative the removal of such restrictions. The central bank, through the rate of discount, ordinarily maintains the proper relation between the currency, and gold reserves, but in emergencies and at times in periods of inflation the central organization is slow to act, only subsequently to face a more serious problem.

FUNCTIONS OF A CENTRAL BANK

Sir Ernest Harvey, Comptroller of the Bank of England, enumerates what he considers the most important principles of central banking.²

¹ William Adams Brown, Jr., *England and the New Gold Standard, 1919-1926* (Yale University Press, New Haven, 1929). In chap. i, Mr. Brown describes the change from the old gold standards to the new and in chap. x he gives a résumé of the conflicting opinions regarding the advisability of a return by England to the old standards.

See also "Report of the Committee on currency and Bank of England Note Issues," in which the committee took for granted as self-evident the general advantages of a gold standard. Summarized in Brown, *op. cit.*, p. 237.

² An Address given before the Victorian Branch of the Economic Society in Australia, April 8, 1927, reprinted in *The Economic Record*, vol. iii, May 1927, pp. 1-14. See the testimony of Montagu Norman, Governor of the Bank of England, before the *Royal Commission on Indian*

" 1. A central bank should possess the exclusive right of note issue." Obviously this requirement should be realized if the central bank is to be held responsible for the stability of the currency. It should be able to regulate the volume of currency and credit to satisfy the varying demands of business.

" 2. A central bank in its management and policy should be free from government control and the influence of politics." To function with a maximum of efficiency, a central bank must enjoy the confidence and support of all classes of the entire country. A policy of finance based on sound economic principles and divorced from governmental and political interference is essential. While it may be desirable to have governmental representation on the board it should be limited to a minority.

" 3. A central bank should be entrusted with the entire banking business of its own government." Seasonal variations in governmental income and expenditure make it desirable to concentrate government financial transactions in the hands of the central bank which adjusts the credit position to assure the stability of the money market.

" 4. A central bank should be the banker of the trading banks and should act as a settling agent for clearing differences between banks." This is a restatement of the principle involved in the centralization of banking reserves, which is the primary function of a central bank. All money not required as till money or as other reasonable reserves should be placed to their credit in the central bank. Daily clearing balances should then be settled by the central bank through transfers between the accounts carried with it by the depositing banks.

" 5. A central bank should not ordinarily compete with the trading banks for general banking business." Such competition would be unfair, since the central bank would be using funds

Currency and Finance, vol. v (1926), p. 233, and that of Benjamin Strong, then Governor of the Federal Reserve Bank of New York, p. 316. See also *Chase Economic Bulletin*, vol. ix, no. 3, May 8, 1929, "Commodity Price Stabilization a False Goal of Central Bank Policy," by Benjamin M. Anderson, Jr., Economist of the Chase National Bank of the City of New York.

entrusted to it by its competitors. Moreover, the central bank should maintain a strong position in order to render assistance to the banks and not run the risk of finding itself similarly circumstanced.

“6. A central bank should ensure to the public the provision of adequate banking facilities on reasonable terms.” This would provide for the unlikely case in which trading banks were not prepared to give the necessary accommodations on reasonable terms. Some freedom should be granted the central bank in its selection of the class of business it should undertake.

“7. A central bank should not take moneys at interest on its own account.” The bank would then exercise greater freedom in changing the proportion between earning and non-earning assets, which is essential to its control over credit conditions.

“8. A central bank should quote publicly the rate at which it is prepared to discount approved bills, and should publish at regular and frequent intervals a clear statement of its position.” This will serve as a guide to the business community which will enable them to gauge the trend of the bank’s financial policy and future money prospects.

“9. The assets of the central bank should be of the most liquid character possible.” This is desirable in order to curtail credit when it becomes necessary to protect the central reserve.

The next four principles are self-evident and need no elaboration.

“10. A central bank should not draw or accept bills payable otherwise than on demand.

“11. A central bank should not engage in a general exchange business on its own account for the purpose of earning profits.

“12. A central bank should not engage in trade, nor have any interest in any commercial, industrial, or other undertaking.

“13. A central bank should have no branch outside its own country, but may have agencies abroad.”

An extended discussion of the functions of a central bank is unnecessary for our purposes, but in the interest of com-

pleteness it is advisable to mention additional powers exercised by some of the central banks of the world:

1. The purchase and sale or rediscount of eligible bills of exchange, promissory notes and other types of commercial paper. These transactions in most instances should be performed for the accommodation of the commercial banks and not through direct operations with the public. Competition with the trading banks is thus avoided.

2. The purchase and sale of securities, especially government issues. Open market transactions not only afford a lucrative source of revenue at times, but they especially make the central bank a more potent factor in its control of credit. These operations should be exercised with discretion and, so far as possible, not in competition with commercial banks unless such a course is essential to credit control.

3. The purchase, sale and dealing in the precious metals. The central bank should, in the interests of safety, accumulate the reserves of the country. The standard metal, either in bullion or coin, should be exchangeable for the central bank notes.

4. The receipt of non-interest-bearing deposits on current accounts and the safe custody of securities, precious metals or similar valuable objects. Although several central banks accept current deposit accounts, the practice is objectionable as the bank necessarily enters into competition with the commercial banks.

The essential function of a central bank and that which distinguishes it from an ordinary commercial bank is to mobilize, maintain and render available the banking reserves of a country. Fundamentally it is a bankers' bank. It should protect the great reservoir of credit from exhaustion and also keep the currency at a steady level by raising or lowering, when necessary, the rediscount rate. A central bank should always be prepared to grant credit at a price. It

should never refuse credit. The central institution should not only serve as the depository of the country's gold and enjoy the exclusive note-issue privilege, but should also control credit as a necessary concomitant.¹

GOLD RESERVES OF CENTRAL BANKS

The history of central banks portrays a constant struggle to acquire and maintain the gold reserves of their respective countries. Control of currency through exclusive note-issue privileges, together with the concentration of reserves, constitute the primary functions of central banks. Credit control is quite impossible if the various trading banks issue notes at will. Rigid restrictions are necessary. Our experience, following the expiration of the charter of the Second Bank of the United States when the small irresponsible local institutions issued notes which circulated at varying rates of discount, taught the fallacy of such a loose uncoordinated means of providing credit and currency. Although the Bank Act of 1863 effected some improvement, the immobilization of gold reserves and the inelasticity of currency subjected the country to recurring financial panics. Formerly state institutions issued notes at will, but the Bank Act required national banks of issue to deposit an equivalent in United States bonds bearing the note-circulation privilege. State notes were taxed out of circulation. The former method of issue was lax, the latter rigid. Prior to the establishment of the Federal Reserve System, the reserves,

¹ *Commercial and Financial Chronicle*, vol. cxix (1925), p. 1265, "Monetary Control—The Power of a Central Bank," by Hartley Withers; *ibid.*, vol. cxxii (1926), pp. 1378-1379, "The Powers of Central Banks—Effectiveness of Control by Means of Changes in Discount Rates," by Hartley Withers; *ibid.*, vol. cxxii (1926), pp. 2445-2446, "A. C. Miller of Federal Reserve Board says, We are Developing a 'Central Reserve Technique'"; T. E. Gregory, "What Can Central Banks Really Do?" *The American Economic Review*, vol. xv (1925), pp. 53-59.

although substantial in amount, were ineffective in times of financial distress. The method of "pyramiding" reserves made them unavailable in times of emergency. Reserves were placed on deposit with other banks which in turn deposited their reserves with still other banks until no bank could withdraw its reserves without disturbing a line of banks, perhaps culminating in the large central reserve cities banks at St. Louis, Chicago or New York. Each bank, in the interest of self-preservation, would accumulate all the gold possible to provide sufficient coin with which to meet its current demand. The large banks in the financial centers, in answer to appeals of the country banks for assistance through the exchange of gold for paper adequately secured, were forced to reply that despite the quality of the paper, they were experiencing a great demand for gold and had no surplus available. Series of suspensions with their attendant evils were inevitable.

In practically every country disastrous experience has shown the necessity for a mobilization of reserves that they might be made available for emergencies¹ where and when needed. The establishment of a central banking institution endowed with sufficient powers, yet judiciously restricted and in which the commercial bankers have confidence, has proved the most desirable method of conserving reserves and also of assuring their availability. In fact, the control of paper currency, credit, and the gold reserves is essential to the proper functioning of a central bank—all other functions are ancillary. The essence of regulation resides in the control of the stock of gold.

¹ For a comprehensive statistical and explanatory exposition of gold and foreign exchange reserves with central banks, see League of Nations, *Memorandum on Currency and Central Banks, 1913-1925*, vol. i, pt. vii, pp. 64-83, and *Memorandum on Central Banks 1913 and 1918-1923*, pp. 8-18 and *passim*.

The necessity for stability in the value of currency and its dependence on an adequate control of gold reserves was fully recognized by the Financial Commission held in Genoa in 1922. The resolutions adopted recite in part: ¹

I.—CURRENCY

RESOLUTION 1

The essential requisite for economic reconstruction of Europe is the achievement by each country of stability in the value of its currency.

RESOLUTION 2

Banks, especially banks of issue, should be free from political pressure, and should be conducted solely on lines of prudent finance. In countries where there is no central bank of issue, one should be established.

RESOLUTION 4

It is desirable that all European currencies should be based upon a common standard.

RESOLUTION 5

Gold is the only common standard which all European countries could at present agree to adopt.

RESOLUTION 8

The next step will be to determine and fix the gold value of the monetary unit

Great importance is attached to the necessity of maintaining a stable currency. Stability theoretically can be attained by the intelligent utilization of fiduciary currency, but the temptation in times of stress is too great to resist the circulation of excess amounts which result in inflation and rising price levels.

¹ *International Economic Conference, Genoa, "Resolutions Adopted by the Financial Commission on the 20th and 29th April, 1922."*

No effective substitute for gold has been devised. The foregoing resolutions reflect the viewpoint, not only of the Financial Commission, but of many students of currency. Obviously, the viewpoint of Representative Darwin Whittitt of the Australian Parliament is extreme when he says,¹ "Gold is the citadel of power; it is the backbone power of a nation; without it wealth becomes the plaything of a savage and the sword of a demoniacal socialism. . . . Gold is the only thing that can be used. It is the symbol of power. It keeps England afloat." If the public could develop sufficient confidence in a central institution which would establish a fixed policy of controlling credit and currency so as to provide adequate facilities for exchange, gold conceivably could be entirely abandoned within a nation. International balances, however, under present conditions, would still call for shipments of gold.

It is necessary to secure the working of a system which substitutes credit for cash. According to Professor Pownall, "Less than 1% of the turnover at the Town Counters of the London banks is in coin, just over 2% in notes, and over 97% in cheques and drafts."² In times of crises reserves are essential. There should be one centralized organization possessing the right of note issue and control of the nation's gold reserves. No better example of a lack of centralization and coordination exists than the financial crisis of 1907 in the United States. America possessed more gold at the time than any other nation, yet the absence

¹ *Parliamentary Debates, loc. cit.*, vol. cvii, p. 1911.

² George H. Pownall, *English Banking: Its Development and Some Problems It Has to Solve*, Three Lectures delivered at the London School of Economics (London, 1914), p. 3. See also *The Manchester Guardian Commercial*, vol. xiii, Dec. 9, 1926, pp. 683, 685, "Is Price Stabilization a Check to Progress? The Future of Central Bank Policy." Address by Professor T. E. Gregory before the Manchester Statistical Society.

of leadership in the concentration and effective utilization of gold accounts for the debacle. A central banking system with power to mobilize reserves and to control the money market is imperative in periods of financial distress. All banks of a country should be concerned with the maintenance in a central organization of sufficient and proper reserves for national requirements.

Practically all of the central bank charters authorize dealing in precious metals, especially gold and silver. It is fully recognized that some suitable authority should be authorized to buy and sell gold as long as it is the accepted standard of value. Stabilization of the currency is possible only when the privilege of note issue also resides in the same institution. When gold is freely traded in it serves as a corrective to inflation, but whenever artificial restrictions are imposed on international transfers, inflation is likely to ensue. A cursory review of the currency evils in Europe following the Great War attests the validity of this conclusion. Some countries found it necessary, in their efforts to stabilize the value of their currency, to free the central banks from the compulsory sale of gold; instead, they authorized them to operate on a gold-exchange basis, that is, bank notes were made redeemable either in gold or in foreign bills of exchange payable in gold. Some of the central banks were permitted to cover a large percentage of their notes with foreign bills of exchange or deposits carried with approved central banks, under special guarantees from each bank and from its government as to the absolute liquidity and freedom of movement without taxation, forced loans or other restrictions.¹ Notable examples of the effort to reform their currencies in this manner are furnished by the Na-

¹ Recommendation of the *International Economic Conference, Genoa*, *loc. cit.*, Resolution II, 2.

tional Bank of Austria,¹ the National Bank of Belgium,² Central Bank of Chile,³ Bank of Finland,⁴ the Reichsbank,⁵ National Bank of Hungary,⁶ Bank of Poland,⁷ and Bank of Italy.⁸ This concerted action increased the interest of these countries in the stability of the foreign currencies used as cover for their notes. The large amounts of "earmarked" reserves held in America for foreign accounts were accumulated to assist in the stabilization of the currency systems of Europe. Prior to the stabilization of the franc, in 1928, the Bank of France had to her credit in the Federal reserve banks and the Bank of England enormous sums subject to call. Her credit and currency difficulties were, as a result, materially reduced.

In the absence of restrictions to the international flow of gold, the most effective means of attracting it when an unfavorable balance persists is to raise the discount rate.⁹ It

¹ Article I, Statutes of Austrian National Bank, 1926. Unless otherwise stated references to the statutes of foreign central banks were taken from Kisch and Elkin, *op. cit.*

² Articles XXIV, XXVI, Statutes of National Bank of Belgium, Jan., 1927.

³ *Bill for the Creation of "El Banco Central De Chile,"* August 21, 1925, Article LXIX (c). Original Statutes consulted.

⁴ "Note of Issue and Reserve," Article VIII, Bank of Finland Act of 1925.

⁵ Article XXXI, Bank Law, 1924, as amended 1926.

⁶ Articles I, LXXXIII, Statutes of Hungarian National Bank, 1924, as amended.

⁷ Article XLVII, Articles of Association of Bank of Poland, 1924.

⁸ Statutes of Bank of Italy as revised January, 1926, Article XL.

⁹ Brown, *op. cit.*, pt. vi, chap. xi. Mr. Brown maintains that the international flow of gold is no longer left entirely to the old types of shipment under the gold standard, but in addition central banks now purchase gold in one country as a commodity and use it as money in another. Such gold movement indicates no lack of equilibrium in prices between countries, and thus does not tell the value of gold in different countries.

is asserted that the Bank of England can suck gold up out of the ground by raising its interest rate high enough. The bank rate may be raised to prevent gold from leaving the country, or to attract additional gold into the country.

It is necessary for banks of issue and deposit to provide adequate gold and other reserves to serve as till money, that is, to meet the current daily demands, and also to meet unusual demands of depositors. In some countries minimum reserve requirements have been imposed by law, while in others, the statutes are silent. All banks, however, recognize its importance. In England and France the commercial banks keep the bulk of their gold reserves on deposit with their respective central banking institutions. A small percentage, especially in France, is carried in their own vaults. The commercial banks carry small cash reserves against deposit liabilities because of the liberal assistance given by the Bank of France whenever it is required. Like the Bank of England, it is the ultimate source of assistance to the other banks. The amendment to the Commonwealth Bank Act of Australia authorizes designated banks to settle their clearing balances by check on the Commonwealth Bank. In order to do so deposits must be maintained with it, although the Act does not prescribe the amount.

LEGAL RESERVE REQUIREMENTS

The following compilation of "Legal Reserve Requirements of Foreign Central Banks," reprinted from the *Federal Reserve Bulletin* of August, 1928, shows the attitude of the various countries relative to the necessity for and ratio of gold and foreign exchange to notes and, in many instances to demand liabilities. It is quite obvious that all believe that substantial gold reserves should be maintained by the central banking institution.

LEGAL RESERVE REQUIREMENTS OF FOREIGN CENTRAL BANKS*

Country	Liabilities against which reserves must be held	Reserve requirements		Qualifying provisions, etc.
		Gold	Gold and foreign exchange	
		Per cent	Per cent	
Albania	Notes . . . . .	. . .	¹ 33 $\frac{1}{2}$	Foreign exchange may not exceed two-thirds.
Australia . . .	Notes	25	. . .	
Austria	Notes plus other demand liabilities, minus amount represented by Federal loan debt.	. . .	² 24	Reserve ratio to be increased at 5-year intervals ending January 2, 1938, the successive ratios being 20 per cent, 24 per cent, 28 per cent, and 33 $\frac{1}{2}$ per cent.
Belgium	Notes and deposits	30	40	
Bulgaria	Notes and other demand liabilities.	. . .	¹ 33 $\frac{1}{2}$	The bank will take steps to raise the reserve ratio to 40 per cent.
Chile	Notes and deposits . . . . .	. . .	² 50	Foreign exchange may consist only of demand deposits payable in New York or London.
Colombia	Notes and deposits	¹ 36	¹ 60	Foreign exchange may consist only of demand deposits.
Czechoslovakia.	Notes plus other demand liabilities, minus amount represented by debt in respect of state notes outstanding.	. . .	¹ 23	Silver in reserve may not exceed one-fourth. Beginning April 1, 1926, with reserve ratio of 20 per cent, the bank will increase it by 1 per cent each year over a period of 15 years.
Danzig	Notes . . . . .	. . .	33 $\frac{1}{2}$	100 per cent reserve must be held against circulation in excess of 100 gulden per capita. Foreign exchange may consist only of demand claims on the Bank of England.
Denmark	Notes	30	50	Foreign exchange may consist only of the bank's non-interest-bearing demand balances with Bank of Norway and Swedish Riksbank, less indebtedness to these two banks, and noninterest-bearing demand balances in special account with German Reichsbank. The bank, when authorized by royal proclamation and subject to payment of a tax, may permit the reserve ratio to fall below the legal minimum.

TABLE XIII—Continued

Country	Liabilities against which reserves must be held	Reserve requirements		Qualifying provisions, etc.
		Gold	Gold and foreign exchange	
Ecuador . . .	Notes and deposits	Per cent . . .	Per cent ¹ 50	Foreign exchange may consist only of deposits payable in gold on demand or on 3 days' notice in New York or London.
Egypt	Notes . . . . .	. . .	50	
England . . .	Notes in excess of fiduciary issue of £260,000,000.	100 . . .	. . .	The original requirement was a gold reserve ratio of 50 per cent, but on October 30, 1916, the bank was authorized to substitute British Treasury bills for gold. Fiduciary issue may be increased by authorization of Treasury.
Estonia	Notes and other demand liabilities.	. . .	40	
Finland	Notes and other demand liabilities in excess of 1,200,000,000 markka.	Markka 300,000	100	Power to suspend requirement is vested in the Government.
France	Notes and other demand liabilities.	Per cent		
Germany	Notes	35	. . .	Foreign exchange may consist only of undisputed balances with foreign correspondents.
Greece	Notes and deposits	¹ 30	¹ 40	
Hungary	Notes plus other demand liabilities, minus amount represented by State debt.	. . .	¹ 20	Power to suspend requirement is vested in the Government. Reserve ratio to be increased at 5-year intervals ending June 24, 1939, the successive ratios being 20 per cent, 24 per cent, 28 per cent, and 33 $\frac{1}{3}$ per cent.
Italy	Notes and deposits exclusive of Treasury fixed deposit account.	. . .	40	
Japan	Notes in excess of fiduciary issue of 120,000,000 yen.	¹ 100 . . .	. . .	Silver in reserve may not exceed one-fourth. Fiduciary issue may be increased by authorization of Minister of Finance.
Java	Notes and other demand liabilities.	¹ 20	
Latvia	Notes . . . . .	. . .	50	Previous to emergency legislation in 1914 the reserve requirement was 40 per cent. Additional requirements for notes in excess of 100,000,000 lats.

Lithuania . . .	Notes	33 $\frac{1}{2}$. . .		
Netherlands . .	Notes and other demand liabilities.	20	. . .		Previous to emergency legislation in 1914 the reserve requirement was 40 per cent.
Norway	Notes in excess of fiduciary issue of 250,000,000 kroner.	100	. . .		Fiduciary issue may be increased, subject to tax, by authority of King and Storting.
Peru	Notes and other demand liabilities.	. . .		50	
Poland	Notes and deposits	30		40	
Russia	Notes . . . . .	. . .		25	Reserve may include platinum.
South Africa . .	Notes, deposits, and bills payable.	40	. . .		Silver in reserve may not exceed one-fifth. The bank, subject to tax and with consent of the Government, may suspend reserve requirements.
Spain	Notes	37, 47	145, 160		Note circulation limited to 6,000,000,000 pesetas and may exceed 5,000,000,000 only with consent of the Government. Consent of the Government required for any reduction of gold holdings and can not be given unless these holdings are in excess of the requirement necessary for a circulation of 6,000,000,000 pesetas. First 4,000,000,000 pesetas require 45 per cent reserve; at least 37 per cent must be gold; 5 per cent may be silver and 3 per cent foreign exchange. Circulation above 4,000,000,000 pesetas requires 60 per cent reserve; at least 47 per cent must be gold; 10 per cent may be silver and 3 per cent foreign exchange.
Sweden	Notes in excess of fiduciary issue of 125,000,000 kronor.	50	. . .		Gold reserve may not fall below 75,000,000 kronor. In emergency the King and Riksdag acting together may extend the fiduciary issue by 125,000,000 kronor.
Switzerland . . .	Notes	40	. . .		Silver in reserve may not exceed one-fifth.
Uruguay	Notes in denominations of 10 pesos or more and deposits.	40		60	Note issue in denominations of less than 10 pesos may not exceed one-half paid-up capital of the bank. Note issue in denominations of 10 pesos or more is limited in relation to capital of the bank, gold deposited by commercial banks, and a war loan made to the French Government.

^a Federal Reserve Bulletin, vol. xiv (1928), p. 563.

^b May legally include silver as well as gold and foreign exchange.

^c The bank is specifically authorized, subject to the payment of a tax, to permit the reserve ratio to fall below the legal minimum.

^d Metallic reserve may legally include silver as well as gold.

REQUIREMENTS UNDER THE FEDERAL RESERVE ACT

The Federal Reserve Act requires member banks of the system to keep on deposit with their respective Federal reserve banks reserves on their demand deposits amounting to 13 per cent for central reserve cities, 10 per cent for reserve cities, and 7 per cent for country banks, and 3 per cent for all three classes of banks against time deposits. This requirement promotes the concentration of reserves. Member banks have found it unnecessary to carry large reserves in their own vaults as in times of need they are assured of adequate assistance from the reserve banks, provided they have approved commercial paper for rediscount. The Federal reserve banks are required to maintain gold reserves of 40 per cent against note issues and 35 per cent of gold and lawful money against deposits. By this means gold has been mobilized and made immediately available to solvent banks in any part of the country. Credit in the form of balances with the reserve banks or the delivery of Federal Reserve Notes relieve member banks whenever desired.

RESERVES REQUIRED OF CENTRAL BANKS

A study of the banking laws affecting a great majority of the central banks reveals the fact that gold reserves against note and deposit liabilities are required. The reserve requirement for the Bank of England notes is 100 per cent, with the exception of £19,750,000 fiduciary currency.¹

¹ "In 1844, there were 207 private banks and 72 joint stock banks authorized to issue their own notes in England . . . the last of these issues lapsed in 1921, representing a total of £8,631,647. In pursuance of the Act of 1844 two-thirds, that is £5,754,431, of the lapsed amount may be added by Order in Council to the Bank of England's fiduciary issue of £14,000,000 as defined by the Act. By various Orders . . . £5,750,000 of the two-thirds of the lapsed issues has been added to the Bank's issue, leaving a balance of £4,431." Luther A. Harr, *Branch Banking in England* (Philadelphia, 1929), footnote, p. 28; *The Statist*, May 11, 1929, p. 860. The fiduciary issue of the Bank of England was raised by Order in Council, February, 1923. See foregoing table.

War financing caused an increase in the fiduciary currency to £260,000,000. The issue may be further increased by authorization of the Treasury. On November 7, 1929, a new law in Czechoslovakia for stabilization of the currency was enacted. Section 6 states in part, "The Bank [National Bank of Czechoslovakia] shall maintain the following metallic cover: Until the end of 1929 at least 25 per cent, by the end of 1930 at least 30 per cent, by the end of 1935 and thereafter at least 35 per cent of the total note circulation plus sight liabilities. . . . At least one-half of the metallic cover shall consist of gold bullion or coin; the balance may consist of foreign bank notes convertible into gold (valuta), foreign full legal tender coin, and bills of exchange which are either drafts . . . or liquid balances with banks of unquestionable standing in the principal banking places of Europe and America."¹

In some instances central banks were authorized to issue a definite amount of notes, the excess issue to be fully covered. For instance, the Bank of Japan may issue 120,000,000 yen covered by government obligations, but all notes in excess of that amount must be fully covered by gold and silver. The Bank of Finland may not issue more than 1200 million marks in excess of the total gold reserve. The gold reserve must not fall below 300 million marks. The National Bank of Hungary and the Austrian National Bank must gradually build up their reserves to 33⅓ per cent of their notes and demand liabilities. The National Bank of Bulgaria's gold reserves against demand liabilities must be at least 35 per cent and finally increased to 40 per cent. The Bank of Sweden must maintain a 50 per cent metallic reserve, excepting 125 million kroner; while the Bank of Norway may issue notes up to 250 million kroner in excess of the gold reserve. Up to July 31, 1914, the Netherlands

¹ *Federal Reserve Bulletin*, vol. xv (1929), p. 798.

Bank was required to maintain a 40 per cent gold reserve, but due to the unsettled conditions growing out of the war the law was modified. Now the amount of cover is subject to Royal decree upon the recommendation of the bank's management and may be changed whenever desired.¹ The State Bank of Russia, which, like all the other banks in Russia, is now owned by the Soviet Government, is required to carry against its note issues a 25 per cent reserve in gold, precious metals or stable foreign currency. The bank's metallic reserve consists of platinum as well as gold. Similar to many of the central banks, especially those which were organized since the World War, the State Bank of Russia may carry part of its reserves in stable foreign currency.² The Reichsbank is required to carry 40 per cent reserves against note issues and demand liabilities. The reserve against notes may consist of gold and "devisen,"³ but three-quarters of the reserve must be in gold. Against deposits the Reichsbank is required to hold a special cover of 40 per cent. This cover consists of deposits in other banks or abroad, checks on other banks, bills of exchange maturing in not more than 30 days, or callable secured loans. The National Bank of Greece, Bank of Estonia, Bank of Poland, Swiss National Bank and South African Reserve Bank must carry 40 per cent reserves, and the Bank of Lithuania 33 $\frac{1}{3}$ per cent.

¹ *Scandinavian Banking Laws, A Translation of the Acts and Regulations Governing the Central Banks*, published for School of Business, Columbia University (New York, 1926), *passim*; K. Dierschke and F. Müller, *Die Notenbanken der Welt*, 2 vols. (Berlin, 1926), vol. i, pp. 305-309.

² Kisch and Elkin, *op. cit.*, pp. 330-331; S. S. Katzenellenbaum, *Russian Currency and Banking, 1914-1924* (London, 1925), pp. 175 *et seq.*; *Federal Reserve Bulletin*, vol. x (1924), pp. 856-858.

³ *Devisen* are defined as bank notes or bills of exchange having not more than 14 days to run, checks and claims due from day to day payable in foreign currency. See Kisch and Elkin, *op. cit.*, p. 249, footnote.

The Commonwealth Bank of Australia must carry gold reserves of not less than one-quarter of the notes in circulation. The reserves of the Bank of Latvia range from 50 to 100 per cent depending on the amount issued, while the gold reserves of the Bank of the Republic of Colombia must be 60 per cent of notes and deposits. With the exception of the Bank of England these requirements are perhaps the highest. The Central Bank of Chile also has a high reserve requirement consisting of 50 per cent of notes and deposits. Commercial and savings banks in Chile are required to maintain with the Central Bank at least 20 per cent reserves against demand deposits and 8 per cent against time deposits. Penalties are inflicted for any violation.¹ It will be observed that these banks are situated in gold-producing countries. On this basis, however, the cover of the Commonwealth Bank of Australia should be considerably higher. The National Bank of Denmark must maintain a 50 per cent reserve although Denmark has no gold mines.

In a few instances silver may also be carried as part of the reserve. The 45 per cent reserve of the Bank of Spain may consist of gold and silver; the Bank of Italy may carry part of its 40 per cent reserve in silver and as much as 2 per cent in fractional silver. Japan also permits its central bank to carry silver as part of the reserve—at one time silver was the standard.

The National Bank of Belgium, although organized as early as 1835, found it necessary to adopt a modified gold exchange standard. Its 40 per cent reserve requirement consists of 30 per cent gold and 10 per cent foreign gold credits. This "quasi-metallic" reserve is similar to that adopted by many of the central banks in their efforts to stabilize their currencies. A noteworthy change has taken place

¹ *General Banking Bill, Decree-Law No. 559 of September 26, 1925, of the Republic of Chile, Articles LXXIII and LXXIV.*

in France. Formerly the maximum note issue was fixed, but altered from time to time to accommodate the needs of trade. There was no prescribed proportion of gold to notes, the latter being issued as conditions warranted against cash or loans and discounts. Efforts at stabilization brought about a change. The maximum-note-issue principle proved unsatisfactory. A definite proportion of gold to notes has been substituted. The Bank of France must now carry gold bullion and gold coins equal to 35 per cent of the volume of circulating bank notes and liabilities on current account.¹ The chartered banks of Canada, although they cannot be classed as central banks, carry reserves consisting from 10 to 15 per cent in gold and 20 to 30 per cent in quick loans. According to experienced Canadian bankers, a bank is on a safe basis when its reserves are 40 to 60 per cent and consist of readily salable securities and cash.² There are no statutory reserve requirements in Canada, but of the amount of reserves carried 40 per cent must consist of Dominion notes.

RETURN TO THE GOLD STANDARD

Theoretical discussions of the disadvantages of gold as a standard of value following the wide fluctuations in value and especially the drastic decline since 1914, failed to convince the world that a satisfactory substitute is possible. A chronological review of the measures undertaken to reestablish a fixed relationship between the currencies and gold of the principal countries attest their determination to return to the gold standard. In a review of the measures, the Federal Reserve Board points out that in many instances a *de facto* gold basis existed for some time before the date of the official acts. From January 3, 1923 to December 31, 1930,

¹ Willis & Beckhart, *op. cit.*, p. 533.

² *Ibid.*, pp. 430-436.

the following countries returned to the gold standard as a means for the stabilization of their currencies: ¹

1923—Austria	1926—Chile
Colombia	Czechoslovakia
1924—Sweden	Canada
Germany	Belgium
1925—England	1927—Bulgaria
Hungary	Denmark
Danzig	India
Netherlands	Ecuador
Java	Argentina
Australia	Poland
New Zealand	Italy
South Africa	1928—Estonia
Albania	Norway
Finland	Greece
Switzerland	France
	1929—Rumania
	1930—Japan

In many instances, especially during and subsequent to the war, the central banks were unable to maintain their statutory reserves. War inflation attenuated the reserve ratios until they were of little or no practical use. Most of the leading countries of the world suspended specie payments and in order to conserve their greatly diminished gold reserves restricted or entirely prohibited gold exports. Herculean efforts to stabilize their currency systems by several countries have shown satisfactory results. All of the countries which stabilized their currencies followed the recommendations of the economic conference at Geneva in 1922, and have linked their money to gold in some way—a gold basis. This promotes world commerce. At this writing, however, the gold reserves against notes and deposits in several countries are quite inadequate.

¹ *Federal Reserve Bulletin*, vol. xiv (1928), p. 562; vol. xv (1929), p. 301; vol. xvi (1930), p. 72.

CLEARINGS AND COLLECTIONS

TABLE XIV

RESERVES AND RESERVE RATIOS OF CENTRAL BANKS*

Name of Central Bank	Date of establishment	Ratio of gold to note issue	Ratio of gold to deposits	Ratio of gold to notes and deposits	Ratio of foreign balances and bills to notes	Charter provides for clearings
		%	%	%	%	
Bank of Sweden.....	1656	44.1	162.4	34.7	37.3	Yes
Bank of England.....	1694	37.5 ^a	120.2	28.7	....	No
Bank of France.....	1800	69.5 ^b	235.4	53.6	27.9	No
Bank of Finland.....	1809	20.8	169.1	18.5	40.1	No
Netherlands Bank.....	1814	55.3	340.8	54.4	19.2	Yes
Bank of Norway.....	1816	46.7	179.3	37.0	13.0	Yes
Austrian National Bank.....	1817	16.2	228.4	15.1	58.6 ^c	Yes
National Bank of Denmark.....	1818	47.9	467.6	43.5	29.1	No
Bank of Portugal.....	1821	0.5	16.7	0.5	17.2	....
Bank of Java.....	1828	49.0 ^d	296.0	42.0	11.9	....
Bank of Spain.....	1829	59.3 ^e	273.4 ^e	48.7 ^e	2.1	No
National Bank of Belgium.....	1835	38.6	637.7	36.4	21.5	Yes
National Bank of Greece.....	1842	11.1	39.9	9.2	52.2 ^f	Yes
Bank of Italy.....	1859	30.6 ^d	248.9	27.2	29.2	Yes
German Reichsbank.....	1875	38.1	468.7	35.2	8.6	Yes
National Bank of Rumania.....	1880	45.4 ^g	118.5 ^e	32.9 ^e	7.6	....
Bank of Japan.....	1882	79.6	131.4	49.6	....	No
National Bank of Serbia.....	1883	1.6	10.5	1.4	4.5	....
National Bank of Bulgaria.....	1885	33.6	64.1	22.1	26.9	No
Bank of Uruguay.....	1896	....	....	....	....	....
National Bank of Egypt.....	1898	....	....	....	....	....
Swiss National Bank.....	1905	55.6	99.4	52.7	23.1	Yes
Commonwealth Bank of Australia.....	1911	66.7	68.1	33.7	22.5	Yes
Federal Reserve Banks.....	1913	167.2 ^h	129.4	73.7	....	Yes
Czechoslovak National Bank.....	1920	16.1	349.3	15.4	23.4	Yes
South African Reserve Bank.....	1920	82.9	116.3	48.4	80.3	....
Bank of Latvia.....	1922	53.3	14.4	11.7	102.1	No
Bank of Lithuania.....	1922	39.1	46.4	21.3	48.3	Yes
Reserve Bank of Peru.....	1922	68.5	250.7	53.8	29.3	....
State Bank of Russia.....	1922	10.1 ^h	11.9	7.3	7.1	Yes
Bank of the Republic of Colombia.....	1923	116.8 ^e	481.9 ^e	94.0 ^e	....	....
Bank of Danzig.....	1924	40.8 ⁱ	943.5 ⁱ	40.1 ⁱ	33.9	....
Bank of Poland.....	1924	47.9 ^e	106.7 ^e	24.3 ^e	32.5	No
National Bank of Hungary.....	1924	33.9	139.3	27.3	8.3	....
Central Bank of Chile.....	1925	18.5	52.5	13.7	112.6	Yes
Bank of Estonia.....	1927	18.4	40.3	12.6	60.6	Yes
Chartered Banks of Canada.....	....	36.5 ^j	2.4 ^j	2.3 ^j	....	Yes

* Calculations by the author from statistics contained in *Federal Reserve Bulletin*, vol. xv (1929), pp. 678-679, 690.

Table XIV shows ratios of gold to note issues ranging from as high as 167.2 per cent for the Federal Reserve System and 116.8 per cent for the Bank of the Republic of Colombia to as low as 0.5 per cent for the Bank of Portugal and 1.6 per cent for the National Bank of Serbia. Inasmuch as deposits constitute a rather small amount in several of the central banks, the ratio of gold to deposits is more favorable. The ratio of gold to deposits was 637.7 per cent in the National Bank of Belgium, 468.7 per cent in the Reichsbank and 467.6 per cent in the National Bank of Denmark. The Bank of Danzig had the largest ratio, amounting to 943.5 per cent but the reserves consisted of "Balances carried with the Bank of England." The smallest ratio of any central bank was 10.5 per cent carried by the National Bank of Serbia. It was closely followed by the State Bank of Russia, the Bank of Latvia and the Bank of Portugal with ratios of gold to deposits amounting respectively to 11.9, 14.4 and 16.7 per cent. The chartered banks of Canada reported a ratio of only 2.4 per cent, but the gold held abroad was not included.

The ratio of gold to notes and deposits was lowest in the Bank of Portugal where it amounted to less than 0.5 per cent. The National Bank of Serbia reported the next lowest ratio, that of 1.4 per cent. The Bank of the Republic

Footnotes to Table XIV, page 222

¹ Notes in circulation included Treasury notes. With the exception of about £260,000,000 the Bank of England notes are fully covered by gold.

² Includes "Sight balances abroad."

³ Only 22% labeled "Foreign exchange of the reserve."

⁴ Statistics for July, 1929.

⁵ Does not include silver reserves which constituted about 23% of total reserves.

⁶ Does not include foreign exchange not labeled for reserve.

⁷ Gold at home and abroad.

⁸ About 20% of reserve consists of "Other precious metals."

⁹ Reserve consists of "Balance carried with Bank of England."

¹⁰ Does not include gold held abroad—not reported.

¹¹ September 30, 1929.

of Colombia reported 94.0 per cent, the highest, but its reserve consisted of gold at home and abroad. The ratio of the Federal reserve banks was 73.7 per cent.

Many of the banks were compelled to establish favorable credit balances in order to stabilize their currencies. Importation of gold was impossible, hence well defined credit balances in central banks where the currency was stabilized were counted as part of the reserves and so authorized by law. It will be observed from the table that most of the central banks resorted to this means of supporting their currencies. The Bank of Chile, for example, carried a ratio of foreign balances and bills to notes of 112.6 per cent, the Bank of Latvia carried 102.1 per cent, the South African Reserve Bank 80.3 per cent, and the Bank of Estonia 60.6 per cent. The Bank of France carried as much as 27.9 per cent and by this means placed herself in a position to stabilize her currency and also to grant foreign credit. Through the same process her reserves, including "Sight Balances Abroad," against notes were increased to 69.5 per cent. Surprisingly few central banks carried no foreign balances and bills of exchange as reserves against their circulation.

MONETARY GOLD

The value of gold gradually declined from 1896 to the outbreak of the World War in 1914. From 1914 to 1920 the decline was precipitous, but following the recession in 1920, the value moved steeply upward until 1922. Since then, it has been comparatively stable until the current changes appeared. The purchasing power of gold, however, is still considerably lower than it was in 1913.

During and subsequent to the World War European banks were denuded. Increasing currency issues aggravated the problem. Post-war stabilization of European currencies called for the prevention of a rise in the value of gold.

Some countries, led by the United States, considerably deflated their currencies. To raise the value of gold there was a protracted process of deflation. The low value of gold was largely due to its diminished demand for monetary purposes. Gold has been withdrawn from circulation and there seems no reason why effective substitutes in the form of bank notes and deposit currency should not be adopted. Custom and the present unpopularity of checks in some countries militate against the popular use of deposit currency. It is probable that the public can be brought to realize the advantages of fiduciary currency if it is amply protected by gold and other suitable assets.¹

Should the pre-war monetary demand for gold return, the proportionate increase in world production will be steadily less than the demand. The arts, likewise, are demanding more gold as material for articles of luxury. During the prolonged period of low gold prices the nonmonetary use of gold increased substantially. If the world is not willing to abandon the use of gold as a standard of value, clearly, each nation should attempt to stabilize its value and to accumulate it under the competent control of a central institution in which there is public confidence. Difficulty is experienced as some of the more prosperous countries habitually hold a disproportionate amount of the world supply.

Table XV prepared by the Federal Reserve System shows the total amount of monetary gold held over a period of years by the central banks and governments of the world. Of a total of \$9,980,000,000 of gold, the United States held about three and three-quarter billions or approximately 38 per cent.

¹ Brown, *op. cit.*, chaps. iv, vi and viii, especially charts on pp. 77, 87, 133, 191. *The Statist*, June 30, 1928, pp. 1204-1205; *The League Council on Economic and Financial Problems*, "The Purchasing Power of Gold." "Four Years of the Gold Standard," *The Statist*, May 11, 1929, pp. 847, 849; John P. Colbert, *The Statist*, June 30, 1928, Jubilee Section, "The Future of the Gold Standard."

TABLE XV
GOLD HOLDINGS OF CENTRAL BANKS AND GOVERNMENTS, 1913-1928*
[In thousands of dollars, converted at par of exchange]

End of year	Total ¹	United States ²	European countries (central banks)											
			Total	Eng-land ³	France	Ger-many	Italy	Austria	Austria-Hungary	Bel-gium	Bul-garia	Czecho-slovakia ⁴	Den-mark	Estonia
1913..	4,830,867	1,290,420	2,807,319	170,245	678,856	278,687	265,476	.....	251,421	59,131	10,615	.....	19,666	.....
1914..	5,310,366	1,206,487	3,452,973	428,221	802,591	498,508	269,584	.....	213,757	56,619	10,615	.....	24,506	.....
1915..	6,228,538	1,706,922	3,776,472	389,205	967,950	581,954	263,278	.....	138,750	50,759	11,773	.....	29,833	.....
1916..	6,508,838	2,193,531	3,470,802	402,970	652,885	599,873	223,400	.....	58,759	50,759	13,124	.....	42,847	.....
1917..	7,085,304	2,520,156	3,540,028	422,594	639,682	572,768	206,721	.....	53,717	50,759	12,159	.....	46,611	.....
1918..	6,751,114	2,655,898	3,040,182	523,632	664,017	538,861	202,403	.....	53,074	57,145	12,352	.....	52,159	.....
1919..	6,731,317	2,524,679	2,887,360	583,211	694,847	259,519	200,098	.....	45,011	51,417	7,141	.....	60,807	.....
1920..	7,140,872	2,434,168	3,033,992	762,912	689,517	260,028	204,372	.....	⁵ 11	51,438	7,141	4,053	60,992	.....
1921..	7,953,777	3,221,215	3,032,941	703,719	690,141	237,102	210,739	.....	⁶ 16	51,451	7,334	12,545	61,192	.....
1922..	8,313,539	3,505,551	3,041,400	751,597	708,403	227,436	217,284	.....	⁷ 9	51,901	7,415	20,874	61,173	.....
1923..	8,582,773	3,833,735	2,993,885	754,400	709,479	111,247	215,699	1,313	.....	52,204	7,565	22,574	56,171	.....
1924..	8,916,427	4,090,067	3,083,897	757,033	710,304	180,939	218,382	1,560	.....	52,543	7,792	31,745	56,145	1,384
1925..	8,890,560	3,985,399	3,135,522	703,482	710,968	287,763	218,825	2,087	.....	52,855	7,981	30,575	56,085	1,279
1926..	9,163,109	4,083,380	3,363,151	735,421	711,106	436,235	220,732	7,388	.....	86,214	8,464	30,731	56,007	1,312
1927..	9,514,293	3,977,181	3,714,828	741,698	954,000	444,158	239,177	11,883	.....	99,878	9,250	29,766	48,780	1,336
1928..	9,980,646	3,740,111	4,311,049	749,767	1,253,500	650,127	265,732	23,743	.....	125,576	9,529	34,237	46,298	1,710

European countries (central banks)—Continued

End of year	Finland	Greece	Hungary	Latvia	Lithuania	Netherlands	Norway	Poland	Portugal	Rumania	Russia	Spain	Sweden	Switzerland	Yugoslavia ⁶
1913..	6,948	4,825	.....	.....	.....	60,898	¹ 11,892	.....	8,760	29,242	786,800	92,490	27,372	32,801	11,194
1914..	8,229	7,527	.....	.....	.....	83,663	¹ 10,290	.....	9,261	29,714	803,400	110,444	29,088	45,922	11,034
1915..	8,229	11,194	.....	.....	.....	172,530	¹ 13,837	.....	9,261	36,264	831,200	166,414	33,385	48,270	12,381
1916..	8,229	11,580	.....	.....	.....	236,217	33,027	.....	9,261	22	758,396	241,424	49,183	66,585	12,321
1917..	8,229	12,159	.....	.....	.....	280,689	¹ 31,193	.....	9,261	.....	667,041	379,597	65,513	69,025	12,310
1918..	8,229	10,248	.....	.....	.....	277,155	32,691	.....	9,263	2	(¹)	430,072	76,532	80,041	12,306
1919..	8,229	10,750	.....	.....	.....	256,204	39,590	1,667	9,266	200	(¹)	472,041	75,350	99,779	12,233
1920..	8,229	10,769	.....	.....	.....	255,729	39,472	2,858	9,266	329	(¹)	474,228	75,516	104,780	12,352
1921..	8,229	10,769	.....	2,123	.....	243,600	39,475	5,955	9,267	329	(¹)	484,984	73,631	106,058	14,282
1922..	8,371	5,944	.....	2,548	1,520	233,880	39,474	9,769	9,267	7,585	2,607	487,278	73,428	103,283	12,354
1923..	8,242	7,180	.....	3,223	1,640	233,876	39,472	13,078	9,267	24,563	45,043	487,841	72,853	103,669	13,286
1924..	8,354	7,527	7,460	4,555	3,080	202,854	39,457	19,949	9,267	26,020	73,050	489,292	63,508	97,642	13,965
1925..	8,357	7,833	10,365	4,555	3,230	178,080	39,456	25,793	9,267	26,735	93,876	489,631	61,647	50,140	14,657
1926..	8,250	8,729	29,526	4,555	3,136	160,231	39,457	26,677	9,267	27,787	84,605	493,489	60,162	91,050	16,620
1927..	7,979	¹ 9,903	34,432	¹ 4,570	3,320	160,796	39,458	58,041	9,267	29,006	97,043	502,484	61,685	99,785	17,133
1928..	7,672	7,196	35,169	4,584	3,427	174,692	39,362	69,685	9,267	30,326	91,887	493,900	63,223	102,874	17,566

⁴ Federal Reserve Bulletin, vol. xv (1929), p. 263.

¹ Revised figures.

² Treasury and Federal Reserve banks.

⁵ Gold held by Bank of England in both issue and banking departments; the latter (\$1,380,276 in 1928) includes some silver. Figure also include gold in currency note reserve, which prior to 1925 was held by exchequer.

⁶ Prior to 1926, banking office of Minister of Finance.

⁷ Austrian account only.

⁸ Prior to 1920, National Bank of Serbia.

⁹ Figures not available.

TABLE XV—*Concluded*

End of year	Other countries														
	Total ¹	Canada : Minister of Finance ²	Argen- tina ³	Brazil ⁴	Central Bank of Chile ⁵	Colom- bia : Bank of the Repub- lic	Re- serve Bank of Peru	Uru- guay : Bank of the Repub- lic	Aus- tralia : Note reserve	New Zea- land: 6 banks of issue	India : Cur- rency and gold stand- ard re- serves	Domestic holdings of Bank of Japan and of Govern- ment	Bank of Java	National Bank of Egypt	South Africa : Re- serve bank
1913..	733,128	116,572	256,126	53,202	.....	.....	.....	10,826	21,899	25,306	123,921	64,963	10,027	10,381	39,905
1914..	670,906	1 99,126	241,539	26,601	1,330	.....	.....	13,483	38,932	27,739	80,127	64,062	12,418	21,750	43,799
1915..	745,144	1 126,545	238,906	14,598	1,330	.....	.....	22,530	73,484	33,092	67,800	68,187	18,804	35,096	44,772
1916..	844,445	1 131,558	265,540	14,598	1,330	.....	.....	33,251	78,351	36,012	78,180	113,411	28,984	29,164	34,066
1917..	1,025,120	1 139,823	288,020	14,598	9,039	.....	.....	42,003	85,650	39,419	90,086	229,981	37,051	19,278	30,172
1918..	1,055,034	1 129,761	304,166	15,571	23,413	.....	.....	46,718	104,143	39,419	64,231	225,821	51,600	16,312	33,579
1919..	1,319,278	1 129,712	336,707	15,571	24,384	.....	.....	56,756	116,796	38,932	128,819	349,947	69,817	16,312	35,525
1920..	1,672,712	1 112,605	473,913	19,464	32,893	.....	.....	57,307	115,336	37,472	116,249	551,840	88,214	16,807	50,612
1921..	1,699,621	1 95,073	472,415	25,303	34,025	.....	.....	59,494	113,389	37,472	118,341	610,663	58,728	16,807	57,911
1922..	1,764,588	1 146,588	472,529	27,401	34,025	.....	19,646	56,807	116,499	38,367	118,341	605,678	61,306	16,619	50,782
1923..	1,755,153	1 127,169	466,495	48,665	34,025	1,849	20,736	56,812	121,088	38,294	108,609	600,194	62,869	16,510	51,838
1924..	1,742,463	1 151,466	443,896	53,799	34,025	6,910	19,753	56,809	121,200	37,581	108,609	585,738	53,726	16,510	52,441
1925..	1,769,639	1 156,768	450,592	54,300	34,025	14,599	19,164	56,807	116,499	37,667	108,609	575,768	73,394	16,510	43,594
1926..	1,716,578	1 158,105	450,557	56,325	10,301	16,495	20,084	56,819	106,975	38,007	108,609	561,810	79,278	16,510	36,703
1927..	1,822,284	1 151,978	529,134	100,746	7,411	19,962	19,437	59,319	105,121	38,280	119,097	541,739	71,640	18,388	40,032
1928..	1,923,486	1 113,948	607,353	148,555	7,363	24,271	19,938	68,346	108,430	35,019	123,989	541,218	68,264	17,519	39,273

¹ Revised figures.² Includes gold held by Government against Dominion notes and savings bank deposits, and such gold as is held by chartered banks in the central reserve.³ Government conversion fund and Bank of the Nation.⁴ Prior to 1923, guaranty of currency fund; subsequently Bank of Brazil and Government stabilization fund.⁵ Prior to 1926, Government conversion fund.

PENALTIES FOR VIOLATION OF RESERVE REQUIREMENTS

So important have many countries considered the maintenance of the stipulated reserves that they have imposed penalties for violations. Inflexible requirements are of questionable value, but when the encroachment upon the reserves reaches what is considered the danger point, the issuance of additional currency should be discouraged, though not prohibited, by penalizing the issuing bank. With this object in view rather elaborate tax schedules have been devised in several countries.

The cover of the note issues and immediate liabilities of the National Bank of Hungary and the Austrian National Bank, according to the 1926 Statutes,¹ were to be 20 per cent for the first five years; 24 per cent for the next five years; 28 per cent for the next five years; and $33\frac{1}{3}$ per cent thereafter. Cash payments were to be gradually resumed and, in the meantime, if the foregoing cash ratio is not maintained the bank is to pay a note tax on the excess note issue equivalent to the bank's discount rate plus a progressive increase. After the resumption of cash payments the rate of taxation on excessive issue is to be greater. If the reserve of Central Bank of Chile falls below 50 per cent, the Bank is subject to taxes on the deficiency below 50 per cent as follows: ²

When the reserve is between 45 and 50 per cent, tax 3 per cent per annum.

When the reserve is between 40 and 45 per cent, tax 6 per cent per annum.

¹ Statutes of National Bank of Hungary, Articles LXXXV-LXXXIX, and Statutes of Austrian National Bank, 1926, Articles LXXXV, LXXXVI, (a) and (b).

² Act of August, 1925, *loc. cit.*, Article LXXXV.

When the reserve is between 35 and 40 per cent, tax 10 per cent per annum.

When the reserve is below 35 per cent the tax, is 10 per cent per annum on the deficiency below 50 per cent plus $1\frac{1}{2}$ per cent per annum for each 1 per cent below 35 per cent.

The Bank of the Republic of Colombia has a similar tax. Two-fifths of the 60 per cent gold reserves against notes and deposits may consist of demand deposits payable in gold in banks of high standing in foreign commercial centers. Taxes for deficiencies in reserves are:¹

When the reserve is between 56 and 60 per cent, tax 4 per cent per annum.

When the reserve is between 54 and 56 per cent, tax 6 per cent per annum.

When the reserve is between 52 and 54 per cent, tax 8 per cent per annum.

When the reserve is between 50 and 52 per cent, tax 10 per cent per annum.

If the reserve falls below 50 per cent an additional tax is imposed on the entire deficiency, increasing by 2 per cent for every 1 per cent by which the reserve percentage falls below 50 per cent. The bank's discount rate must be at least 8 per cent if the reserve remains below 60 per cent for one week. A special privilege is granted member banks. Reserves required of other banking concerns are defined as 50 per cent and 25 per cent of demand and time deposits respectively, but the reserves of member banks are only half the percentage required of non-members.

The Czechoslovak National Bank is also subject to taxation on excess note issues. In the event that the reserve falls

¹ *Proyecto De Ley, Organica Del Banco De La Republica De Colombia, 1923, Article XVIII.*

below the prescribed amount, the Bank is taxed on the difference between the actual and permissible banknote circulation.¹ The rate of tax equals the rate of discount: (a) plus 1 per cent if the decrease in reserve does not exceed 2 per cent; (b) a further 1½ per cent for each succeeding impairment of 2 per cent or part thereof.

The reserve of the Bank of Estonia consists of gold at home and earmarked in foreign central banks, and foreign exchange freely convertible into exportable gold. Should the reserve fall below the minimum requirements, progressive taxes are paid daily at the following percentages above the current discount rate for 3 months' bills:²

1½ per cent if the reserve is less than 40 per cent, but not less than 35 per cent.

2 per cent if the reserve is less than 35 per cent, but not less than 30 per cent.

3 per cent if the reserve is less than 30 per cent.

The Bank of Greece is taxed in a similar manner. In addition to gold the 40 per cent reserve may consist of "net foreign gold exchange," that is, balances standing to the credit of the Bank at foreign central banks, bills of exchange payable in a foreign currency maturing within three months and bearing at least two signatures, and treasury bills of foreign governments maturing within three months. Excess circulation or demand liabilities above the prescribed reserves are taxed as follows:³

1½ per cent above the minimum current discount rate of the

¹ Act of April, 1920, as amended April, 1925, Article VIII, 1.

² Statutes, 1927, Article LX, *The Estonian Economic Review*, Nr. 1 (5), April, 1927. Amendments are in Nr. 2 (6), September, 1927.

³ Draft Statutes of Bank of Greece prepared by the Financial Committee of the League of Nations, September, 1927, Articles LXII, LXIII.

Bank of Greece, if the reserve is less than 40 per cent and not less than 35 per cent.

2 per cent if the reserve is less than 35 per cent and not less than 30 per cent.

3 per cent if the reserve is less than 30 per cent.

The notes of the Bank of Latvia are covered by reserves consisting of gold or stable foreign currencies. A reserve of 50 per cent is required against the first 100 million lats, 75 per cent against the issue in excess of 100 million lats, but not more than 150 million lats, and 100 per cent if the issue exceeds 150 million lats.¹

The reserve of the Bank of Spain is on a graduated scale. With a circulation of 4000 million pesetas the reserve is 45 per cent in metal, a minimum of 40 per cent to be in gold, the balance in silver. On the note issue in excess of 4000 million and up to 5000 million pesetas, a metal reserve of 60 per cent is required, of which at least 50 per cent must be in gold.²

Practically the same methods of taxing excess issues obtain in Germany, South Africa and the United States. The Reichsbank must maintain a reserve of 40 per cent against notes and deposits. The reserve against notes may consist of gold and "devisen," at least three-quarters of which must be gold. Deficiency taxes are imposed as follows:³

If ratio is 37-40 per cent, tax is 3 per cent per annum.

If ratio is 35-37 per cent, tax is 5 per cent per annum.

If ratio is 33½-35 per cent, tax is 8 per cent per annum.

If the ratio is less than 33½ per cent the tax is 8 per cent plus 1 per cent for each 1 per cent by which the gold cover is below

¹ Statutes of 1923, Article XIII.

² Law of December 29, 1921, Article I, 2.

³ *Bankgesetz vom 30. August, 1924*, Article V, Sec. 29.

33½ per cent. During such period the minimum bank discount rate is 5 per cent, and whenever taxes are imposed the discount rate must be raised by at least one-third of the tax payable.

The South African Reserve Bank may permit its reserve to decline below the 40 per cent minimum requirement, but in such event it is subject to a graduated tax as follows:¹

If the reserve is less than 40 per cent of the note issue and more than 32½ per cent, the tax is 1 per cent; and an additional tax of 1½ per cent upon each 2½ per cent decrease when the reserve falls below 32½ per cent.

The Bank must add an equivalent increase to its interest and discount rate. The Bank must first allow 40 per cent cover against its deposit liabilities before calculating the available reserves for its notes.

The Federal Reserve Act² empowers the Federal Reserve Board to suspend the reserve requirements for a period not exceeding thirty days, and from time to time renew such suspension for periods not exceeding fifteen days, provided it established a graduated tax upon the deficiencies. If the reserve against notes falls below 40 per cent to as low as 32½ per cent, a tax of 1 per cent on the deficiency is imposed, and when the reserve declines below 32½ per cent, a tax of not less than 1½ per cent upon each 2½ per cent or fraction thereof is required.

COMPULSORY CONCENTRATION

The object in reviewing the rather rigid reserve requirements and the effective means of assuring their permanence by many of the leading countries is to call attention to the compulsory concentration of reserves. Further illustra-

¹ Act of 1920, amended 1923, Article XIX.

² *The Federal Reserve Act*, Sec. 11 (c).

tions would also indicate the extent to which reserves against demand liabilities are carried by commercial banks with central institutions, either in compliance with law or because of convenience and safety. By way of illustration, the commercial banks of the Union of South Africa are required to keep reserve balances with the South African Reserve Bank up to at least 10 per cent of demand liabilities and 3 per cent of time liabilities. A penalty of 10 per cent per annum on the amount of the deficiency is imposed.¹ Both law and custom have built up systems of central banking in which the standard of value has tended to centralize in the central banking institutions of the world. Experience has taught the wisdom of the mobilization of reserves and has demonstrated the efficiency and effectiveness of their utilization in times of financial stress. In short, such concentration is logical and expedient.

With the concentration of reserves in order to protect the circulation and the deposits there logically develops other important uses to which the funds may be put. Outstanding among these uses is the practice of settling clearing balances by mere transfer of ownership of the reserves carried with the central institutions by the clearing banks. A brief review of the statutory provisions for the settlement of balances through the central banks illustrates the extent to which this method is used. In some instances the statutes are silent, nevertheless, the central bank performs this important function.

CLEARING SETTLEMENTS THROUGH CENTRAL BANKS

At least eighteen central banks of the world are either authorized or required by statutes to inaugurate methods to facilitate the settlement of clearing balances and, in fact, in some instances to set up the central clearing machinery.

¹ *Loc. cit.*, Article XXX.

The whole-hearted cooperation of the commercial banks is essential to the greatest success. In many countries the necessary support has been realized. Some of the most powerful central banks, although under no statutory obligation, have elicited assistance of the commercial banks in the establishment of centralized clearings and settlements. The English clearing procedure, reviewed in an earlier chapter, exemplifies this development in which the central bank is the custodian of the deposits of large commercial banks¹ which settle their clearing-house balances by draft on the Bank of England. The procedure in Berlin and Paris is similar.

The Bank of Sweden, established in 1656 and the oldest central bank, is authorized to receive deposits in checking accounts and to make the necessary arrangement to facilitate clearing.² Article I of the laws governing the Bank of Norway authorizes the bank to function as a bank for loans, clearings, deposits and note-issue.³ The Netherlands Bank may keep current accounts, effect transfers and clearances, and collect moneys on behalf of its clients.⁴ The Austrian National Bank was established for the purpose of regulating the circulation of money in Austria, of *facilitating clearing of payments* and of providing for the utilization of available capital.⁵ A similar statement of purpose appears in Article I of the Statutes regarding the Hungarian National Bank. The Austrian National Bank may open current deposit and *clearing accounts*.⁶ The National Bank of Belgium may

¹ B. Andréadès, *op. cit.*, pt. iv, ch. i, pp. 297-298, 321-330.

² Law of the Riksbank of May 12, 1897, with amendments to 1924, Article XVI (b), quoted in *Scandinavian Banking Laws, loc. cit.*, p. 113.

³ The Laws Governing the Norges Bank; quoted in *Scandinavian Banking Laws, loc. cit.*, p. 84.

⁴ Bank Act, 1919, Article XI, 6.

⁵ Statutes of Austrian National Bank, 1926, Article I. Italics are the author's.

⁶ *Loc. cit.*, Articles LVII-LIX.

help in the formation and management of clearing houses.¹ Similarly the Bank of Greece may promote the establishment of a clearing house and give facilities for the conduct of its business in premises belonging to the Bank.² The Bank of Italy may act as Clearing House: under the Decree of May, 1926, it is laid down that the Bank shall have the exclusive charge of the clearing houses.³ The central bank of Chile is authorized to collect checks and to "act as a clearing house for member banks in Santiago, and in other cities of the Republic in which it has branches."⁴ Every national bank in Chile is a member of the Central Bank of Chile.⁵ The Bank of the Republic of Colombia, in contrast to the permissive privilege accorded the Central Bank of Chile, *shall* act as clearing house for member banks in Bogota and other cities in which it may have branches.⁶ Banks which are not members of the system are not entitled to the clearing privileges. The National Bank of Czechoslovakia has charge of the establishment of clearing houses⁷ while the Bank of Estonia⁸ and the Bank of Lithuania⁹ conduct the clearing house operations. The statutes of the State Bank of Russia state:¹⁰

In order to centralize the settlement of accounts arising in

¹ Statutes of January, 1927, Article XXXI.

² Draft Statutes, *loc. cit.*, Article LV, 15.

³ Statutes of the Bank of Italy as revised January, 1926, Article XVII.

⁴ Act of August, 1925, Articles LV, LVI.

⁵ *Loc. cit.*, Articles XIX, XX.

⁶ *Proyecto De Ley, Organica Del Banco De La Republica De Colombia*, 1923, Article XIII.

⁷ Act of April, 1920, as amended April, 1925, Article VIII, Sec. 5.

⁸ Statutes of 1927, Article 36 (h).

⁹ Act of August, 1922, Article VII, Sec. 11.

¹⁰ Articles XXXIII, XXXIV. Translation into English in Dierschke and Müller, *op. cit.*, vol. ii, p. 588.

the course of trade and industry between institutions, undertakings, cooperatives and other organizations and private concerns, the Bank undertakes at its Head Office and local branches to open special Clearing Offices, granting to the participants in these special privileges and facilities in connection with the transfer, commission and operations of the Bank, charging the members of these Clearing Offices actual expenses incurred in the working of the offices.

Rules for . . . conditions of membership in Clearing offices, will be laid down by special instructions

The Commonwealth Bank Act of Australia 1911-1920, as amended August 20, 1924,¹ provides that,²

on and after a date to be fixed by Proclamation such corporations as are specified by Proclamation, which carry on the business of banking, shall settle, as between themselves, by means of cheques drawn on and paid into the Commonwealth Bank, the balances arising between those corporations out of any customary general clearance effected in any capital city in Australia.

Sub-section (7) of Section 60 AD defines the word "Bank" so as to make certain the banks which shall be required to clear by check on the Commonwealth Bank. In accordance with the Act, the Governor-General on November 26, 1924, named twenty-one banks in addition to the Commonwealth Bank.³ Obviously it is necessary for the commercial banks to carry adequate balances with the central bank to meet adverse clearing balances, although the law does not prescribe any definite amount.

The Reichsbank⁴ is authorized to facilitate the clearance

¹ Article 60 AC.

² *Commonwealth of Australia Gazette*, No. 89, November 27, 1924, p. 2789.

³ *Bankgesetz vom 30. August 1924*, Article I, Sec. 1.

of payments ("die Zahlungsausgleichungen zu erleichtern") and to receive non-interest bearing funds in connection with deposit business and clearing operations ("unverzinsliche Gelder in Depositengeschäft und im Giroverkehr anzunehmen.")¹ Thus the Act, drafted in compliance with the Dawes Committee plan of financial reorganization and currency stabilization, authorized the Reichsbank to continue as formerly to conduct the clearing system of the country. The Reichsbank controls the entire urban and country clearing transactions of business. Its branches, numbering 456 and situated throughout the country,² provide adequate clearing facilities for all the large transactions. In addition to the clearings effected by the Reichsbank, which are confined to the larger transactions, the postal system (Reichspost) clears the small amounts. These two classes of clearings are in addition to that of the public credit institutions.³

Although the statutes are silent on the subject, nevertheless, the Bank of France⁴ is the center of clearing operations. In fact, several central banks such as the Bank of France, and the Bank of England, perform this function as the logical procedure when reserves and deposits balances are maintained in such institutions. The Canadian bankers through their association have inaugurated a system which necessitates the concentration of adequate balances with a central settlement agent. Without some arrangement by which reserves can be concentrated there seems to have developed no satisfactory method of settling balances. The early practice of settlement through the physical deliv-

¹ *Loc. cit.*, Article IV, Sec. 21, sub-sec. 7.

² *Annual Report of the Reichsbank, 1929, p. 19.*

³ Willis and Beckhart, *op. cit.*, pp. 648-649.

⁴ For a compilation of French banking laws, see Dierschke and Müller, *op. cit.*, vol. ii, pp. 373-576.

ery of specie and eligible currency was both cumbersome and dangerous. Decentralization of reserves with attendant evils was the necessary concomitant. American experience previous to the adoption of the Federal Reserve System sufficiently demonstrates the evil effects of a free banking system with no centralized control of banking operations and a lack of cooperation in the intelligent mobilization and utilization of the country's reserves.

INTERNATIONAL SETTLEMENTS

The question of the establishment of effective means for settling international balances is not a new one. As early as 1908, the Italian statesman Luzzati recommended a plan to effect a more satisfactory division of gold and thereby prevent rises in the central bank rates. Countries having an abundance of gold would be willing to grant loans to others if international cooperation were established. Professor Wolff of the University of Breslau and Secretary of the United States Treasury, Cortelyou, proposed the cooperation of central banks in time of financial stress.¹ The International Economic Union at its Congress held in Brussels in 1912 resolved:

I

The International Economic Union expresses the desire that European Banks of Issue should hold international conferences.

The object of these conferences would be to examine all proposals for improving and perfecting the present system of international payments, and to make preparations for the carrying out of plans recognized as expedient and feasible.

Moreover, conferences of this kind are essential in order to

¹ *League of Nations Provisional and Financial Committee Financial Section*, Geneva, April 8, 1912, p. 2, "Note on the Plan for an International Clearing House," by M. A. E. Janssen, Director of the National Bank of Belgium.

render possible the effective cooperation of Banks of Issue in exceptional circumstances.

II

Amongst the projects which could be put into practice at once by a Conference which included delegates of the Central Banks, the International Economic Union calls attention to the following :

1. The establishment of a system of international transfers for the benefit of holders of current accounts in Banks of Issue.
2. An International Clearing House which would adjust the debits and credits of all adhering banks by the clearing system.
3. The reciprocal collecting of any foreign bills which they may hold.
4. The issue, at the request of the public, of international letters of credit or cheques by one bank on another.

Mr. Janssen says,¹ In practice, settlements between one country and another are generally effected by clearings; that is to say, by an exchange of drafts and cheques and by direct or indirect remittances. These operations are settled by means of the current accounts which the banks, which in each financial centre specialise in exchange operations, carry with one another. In some circumstances these international clearings are more difficult; they are effected, however, by means of a series of reciprocal actions and reactions, by the movement of goods and, above all, of securities rather than specie. . . .

When the balance of payments was momentarily upset, the rates of foreign exchanges were immediately affected by it. The balance standing to the credit of foreign countries had to be paid and the metal reserves of the Banks of Issue were drawn upon. In order to arrest the outflow of gold, the usual remedy was rapidly to raise the official bank rate. . . .

Sometimes the rise in the bank rate did not produce the expected result. In spite of the bait offered by a high rate of interest, capital nevertheless left the country either because there was no longer any confidence in the credit of the debtor

¹ *Loc. cit.*, p. 3.

market or because of an urgent need of specie in foreign countries. Thus, in November 1907, the Bank of England raised the official rate to 7 per cent., but did not succeed in checking the export of gold to the United States, where an acute financial crisis was raging. But for a timely intervention on the part of the Bank of France, in the form of a direct consignment of gold to the Bank of England, it would not have been surprising if the bank rate in London had risen to 10 per cent., at the risk of causing profound disturbance in English trade, and, as a result, in Continental trade. Similar situations also arose in 1890 and 1906.

The process of international interchange of gold from the countries temporarily possessing an abundance to those in which a scarcity exists, and the struggle for gold through reciprocal rises in the discount rate could be avoided. Reciprocal gold loans have proved successful in many instances, but the establishment of a gold fund deposited in an international institution and in which transfers of ownership could be effected by a mere scratch of the pen would largely obviate the necessity for the constant international interflow of gold. Gold would become more potent and serve more advantageously as a stabilizer of the currencies. Despite the inequality of debit and credit balances which would likely arise in abnormal times there would still exist the necessity for the liquidation of international accounts through the offices of an international clearing institution.

The reciprocal arrangements among the three Scandinavian central banks by which they carry non-interest-bearing current accounts with each other which are subject to check and which may be counted as part of their metal reserves, make possible the settlement of international balances without the frequent shipment of gold as was necessary prior to the adoption of this plan in 1885. Another illustration of international clearing settlements is the system of interna-

tional payments of the Universal Postal Union. A central office for this purpose, situated at Berne, is really an international clearing house.

The International Financial Conference held in Brussels in 1920, recognized the importance of pre-war recommendations for periodic conferences by the officers of central banks to consider the discount policy, stabilization of the value of gold and the settlement of international balances, so far as possible, through the offices of an international clearing house.

The Conference called "attention to the advantages of making progress," among other things, in "the establishment of an international clearing house."¹ A similar resolution was adopted by the Financial Commission of the International Economic Conference, held in Genoa in April, 1922.²

These steps might by themselves suffice to establish a gold standard, but its successful maintenance would be materially promoted, not only by the proposed collaboration of central banks, but by an international Convention to be adopted at a suitable time. The purpose of the Convention would be to centralise and coordinate the demand for gold, and so to avoid those wide fluctuations in the purchasing power of gold, which might otherwise result from the simultaneous and competitive efforts of a number of countries to secure metallic reserves. The Convention should embody some means of economising the use of gold by maintaining reserves in the form of foreign balances, such for example, as the gold exchange standard, or *an international clearing system.*

¹ *International Financial Conference, Brussels, 1920*, "Resolutions Proposed by the Commission on International Credits and Adopted Unanimously by the Conference," Resolution XII (6).

² *International Economic Conference, Genoa, 1922*, "Resolutions adopted by the Financial Commission on the 20th and 29th April, 1922," Resolution 9. Italics are the author's.

BANK FOR INTERNATIONAL SETTLEMENTS—YOUNG PLAN

A committee of experts appointed in accordance with the decision of the Belgian, British, French, German, Italian and Japanese Governments and consisting of representatives of the six governments mentioned and also of the United States, headed by Owen D. Young as chairman, was given the task of drawing up proposals for a complete and final settlement of the reparations problem. The committee unanimously signed their report on June 7, 1929. Our special interest in the report is the fact that to a large degree the solution of the whole reparations problem was centered around the establishment of a Bank for International Settlements.¹ The committee was of the opinion that the existing method of reparation payments could not continue indefinitely. It tended to disrupt the financial structure not only of Germany but throughout the world. Mr. S. Parker Gilbert, Agent General for Reparations, in his annual report for 1927, stated that the reparation problem "*will [not] be finally solved until Germany has been given a definite task to perform on her own responsibility, without foreign supervision and without transfer protection.*"²

The Bank for International Settlements, as incorporated in the Committee's report and known as the Young Plan, has an authorized capital of 500,000,000 Swiss francs (about \$96,896,500) and is divided into 200,000 shares of which 112,000 shares or about 56 per cent must be subscribed before the Bank could begin business.³ The seven

¹ Mr. Young on March 7, 1929, proposed to his colleagues the creation of a great international banking institute or clearing house, with headquarters at the Hague and with all the great national banks as members.

² *The Congressional Digest*, August-September, 1929, vol. viii, nos. 8-9.

³ *The Commercial and Financial Chronicle*, vol. cxxx (1930), p. 42; *Report of the Committee of Experts on Reparation*, pt. 6 B; *Federal Reserve Bulletin*, vol. xvi (1930), p. 358.

countries represented by the experts control a majority of the total shares, the balance to be issued to central banks of other countries. The Plan provided for a substantial initial deposit in the Bank which is to be increased by the periodic reparation payments and by other classes of deposits.

The administrative control of the Bank is vested in a board of directors consisting of the governors of the six central banks represented and an additional appointee by each.¹ Inasmuch as the United States has refused to permit an "American official, directly or indirectly, [to] participate in the collection of German reparations through the agency of the bank or otherwise" (Secretary of State, Henry L. Stimson), provision was made for the appointment by the directors of the other countries of two directors from America and also to name some other banking institution if the Federal reserve banks refused to join. The banking firm of J. P. Morgan and Company was selected; with it are associated other leading American banks. The Bank of France and the Reichsbank, during the period of reparation, that is to 1988, were permitted to appoint one additional director each. This makes sixteen directors in all.

The Bank is authorized to receive deposits consistent with the nature of its functions in the facilitation of international settlements and in connection with German annuities. Deposits may include the following classes: (1) on annuity account; (2) from central banks; (3) *from central banks*

¹ *International Conciliation*, October, 1929, No. 253, published by Carnegie Endowment for International Peace, "The Reparation Settlement Signed June 7, 1929 with Historical and Explanatory Introduction," for the Young Plan; Dr. Friedrich Raab, *Young-Plan oder Dawes Plan?* (Berlin, 1929); Dr. Raab includes a selective bibliography. *The New York Sun*, November 14, 1929, for full text of laws which govern the Bank for International Settlements, as adopted by the seven guaranteeing nations and signed at Baden-Baden, Germany.

on clearing accounts; (4) originating in connection with German annuities; (5) in connection with the guarantee fund and relative to the mobilization of the unconditional annuity provided in the plan; and (6) special deposits of the German Government. Reserve requirements were imposed. Deposits against the clearing accounts, which in effect constitute a gold-settlement fund representing gold delivered by central banks or earmarked by them for account of the Bank, must all be held. Deposits payable in 15 days must be secured by a 40 per cent reserve in gold or in foreign exchange on gold standard or gold exchange standard countries. A reserve of 25 per cent in gold or foreign exchange must be held against deposits of longer maturity than 15 days.¹ The Bank has power to:²

1. Buy and sell gold, earmark gold, and make advances on gold.
2. Buy and sell bills of exchange and other obligations of prime liquidity.
3. Open and maintain deposit accounts with central banks.
4. Rediscount for central banks bills taken from portfolios to make loans to them on security of such bills, or to make advances to them against the pledge of other securities.
5. Buy and sell intermediate or long-term securities up to the amount of its capital and reserve funds.
6. Invest in Germany Reichsmark funds standing to the credit of the Bank at the Reichsbank, etc.
7. Issue its own obligations at long or short term, secured or unsecured, for the purpose of relending to any central bank.

The plan provided for the elimination of the office of the Agent General for Reparation Payments and also the Rep-

¹ *Young Report*, Committee of Experts on Reparations, Annex I, "Suggested Outline for the Organization of the Bank For International Settlements," pt. x, secs. 2, 3. Hereafter cited *Suggested Outline*.

² *Ibid.*, Part VI.

aration Commission so far as Germany is concerned. The Bank must, therefore, render the service performed by the Agent General. Its primary and compulsory functions are to receive and disburse reparation payments, effect transfers and handle deliveries in kind; its secondary and permissive function authorizes it *to act as a bank for central banks*. The Bank will thus provide facilities for the international movement of funds and provide a ready instrument for the promotion of international financial relations. Thus its essential function will be the receipt, management and distribution of the annuity payments; its auxiliary function to maintain deposits for annuity trust account, and for clearing account. The purpose of the clearing account is to settle balances among the central banks without the actual shipment of gold. The international shifting of money from one market to another with changes in the interest rate and also for foreign investment, can be assisted by the Bank. The return to the gold standard or a modified form of it by many European countries, makes assistance necessary or desirable in order for them to maintain their position. The desired stability is difficult to attain and in some instances unattainable without external assistance. Central banks of other countries could upset the stability by open market transactions, the discount rate, gold reserves and foreign exchange bills.¹ The Bank has discount powers similar to those enjoyed by other central banks. It is permitted to rediscount for commercial banks as under the Federal Reserve System and to deal with private banks interested in foreign operations. It is to have no political connections, to be managed by competent and experienced bankers and located in Basel, Switzerland, a city in a neutral country.

¹ Paul Einzig, *The Bank for International Settlements* (London, 1930), pp. 16-20.

CLEARING FUNCTION OF THE BANK

Large shipments of gold from one central bank to another have been necessary in the maintenance of parity after the stabilization of the currencies of the various European countries. The interflow during the last few years of gold among the United States, England and France illustrates the need for machinery to facilitate the transfer of ownership which should greatly reduce the physical transfer of gold. Formerly it was considered necessary to establish an international gold reserve in order to establish a satisfactory international clearing system. This assumption has no doubt contributed to the delay in the establishment of a suitable clearing mechanism. The ingenious plan, as authorized by the statutes of the Bank,¹ does not make it a *conditio sine qua non* that a gold fund be maintained with the Bank for gold clearing purposes. The Bank is authorized to accept gold deposits from central banks and also to deposit gold with central banks. The gold properly earmarked may be held by the various central banks and become just as effective in clearing transactions as though held with the Bank itself. This statement is based on the assumption that the government of the central bank does not interfere with the fund and places no embargo on its export. In this way an international gold reserve can be established without a central gold reserve. The contributions of central banks to the international gold clearing fund may be carried on deposit with themselves instead of shipment to the Bank. Should the Reichsbank, for instance, wish to transfer gold to the Bank of England, it would authorize the Bank for International Settlements to charge its account and credit that of the Bank of England. The amount earmarked for the Bank for International Settlements with the Reichsbank

¹ *Suggested Outline, loc. cit.*, pt. v (3), pt. x (1).

would remain unchanged, but its account with the Bank would be reduced and that of the Bank of England correspondingly increased. Simple bookkeeping entries show the change in ownership. Should unusual balances arise gold could be shipped. Central banks are enabled to accept gold in any foreign gold market and to deliver gold at any foreign gold center. Should, for instance, disparity arise between Berlin and Paris it would be unnecessary for arbitraguers to ship gold; parity could be restored by crediting the account on the Bank's books of one central bank and debiting that of the other. The arrangement is not new as central banks have arranged triangular transfers of gold on several occasions.¹

There has been a long-felt need for a system by which the central banks could settle their differences similar to that of the Gold Settlement Fund adopted by the Federal Reserve System. To fill this need the Plan authorizes the Bank to act as agent for any central bank in international clearings and settlements, thus rendering unnecessary the interflow of large quantities of gold to the extent as formerly. The clearance of reparation payments is also provided for in the Plan. The Bank is, however, more than a clearing house; it is really a central banks' bank, international in scope and is endowed with sufficient powers to fill the gap formerly existing in the settlement of international balances and the performance of other functions on an international scale similar to the functions of central banks within their respective countries. It will serve as a common meeting place of central bankers to facilitate the exchange of ideas in the promotion of cooperation essential to the stability of the world credit structure.

¹ *Einzig, op. cit., pp. 96-97.*

FINANCIAL STABILIZER

The Bank for International Settlements will not only serve as the agent of the nations in the receipt of reparation payments in marks or in kind and transfer them to the available credit of the creditor countries, but it will act as a stabilizer in the field of economics and finance, not only between Germany and her creditors but also between other countries as well. It will link, if its full measure of usefulness is attained, the central banks of the world together in receiving deposits, carrying the general gold funds, controlling a large amount of the world's foreign exchange operations, floating both long- and short-term loans, supplying international needs for foreign credit and effecting between central banks clearings and settlements.

The Bank should succeed even if reparations fail. It is possible to develop into a sort of clearing house which could control the international exchanges. Modification of central bank discount rates would be less frequent—there would likely develop a greater degree of stability in the rates. This great power, if improperly used, could also destroy the stabilizing power now vested in the various European central banks. Gold-arbitrage operations and the free movement of gold are essential to the gold standard, which should not be reduced by the Bank to a managed system. The American banker is not willing to commit the management of the gold policy of the country practically to a foreign organization or, indeed to come under the domination of that organization.¹

The clearing functions and international settlements are not likely to be perfected for some time. The institution must remain entirely divorced of political influence, it must

¹ H. Parker Willis, "The United States and the New International Bank," *The Banker* (London), vol. xi (August, 1929), pp. 193-202.

be strictly international *de facto* as well as *de jure*. Confidence arising from a well-earned record of conservative and efficient administration is essential to unstinted cooperation so necessary to the full fruition of its powers. It must obtain considerable support in the form of deposits through, perhaps, the transfer of balances of central banks now held abroad. International clearings and settlements through the utilization of substantial gold reserves credited to the accounts of the member central banks should effect economies sufficient to justify the procedure, but transitions from the existing practice to the new is likely to require time. Stability of national currencies and more especially international exchange rates will likely ensue.

BALANCES SETTLED BY CENTRAL BANK GOLD

The commercial world has expressed a decided preference for gold. Its mobilization under the management of a central organization that its availability may be assured during emergencies is essential to sound banking. The same institution should be endowed with exclusive note-issue privilege and should enjoy sufficient governmental and financial backing to give it control of credit. This control is essential to the stabilization of a nation's currency. Credit, currency and gold reserves should be under its management, but the essence of regulation lies in the control of the stock of gold. In recognition of this fact, both law and custom have created central banking systems where gold has tended to centralize. During financial stress, the wisdom of the mobilization of reserves is demonstrated by their efficiency. Concentration is logical and expedient. Circulation and deposits receive greater protection owing to the effectiveness of the reserves.

Mobilization of gold not only strengthens the entire credit structure, but the fund may also be utilized for other pur-

poses, among which is its use in settling clearing balances. Bookkeeping entries suffice to effect settlement. In fact, without the concentration of gold there seems to have been no satisfactory method of settling balances. Thus the central banks with their large deposits of gold are admirably suited to this service. For this reason many of the central banks have been authorized by law to inaugurate clearing systems and to supervise their operations. In most instances central banks facilitate the settlement of clearing balances whether or not there are statutory requirements.

Greater difficulties arise with any attempt to set up a system for the settlement of international balances. Nations are jealous of their gold resources and are unwilling to entrust their care to others. Most plans have been based on the international mobilization of gold, for settling balances, consequently their fate was foredoomed. The retention in the various central banks of gold "earmarked" for the Bank for International Settlements is an improvement on the earlier plans and offers a possible solution. Title can be transferred without the movement of gold.

CHAPTER VII

GENERAL COMMENTS

THE function of a clearing house is to facilitate the exchange of checks, drafts, acceptances and other eligible items drawn on members, to determine balances due through the process of offsetting claims, and to provide a system for the settlement of net balances. For these and other minor purposes bankers have organized clearing houses in every commercial country where the check is in general use.

Details of clearing procedure vary in the different countries but the same principle of offset is applied. In some countries, such as Italy, Germany and Russia, the central bank has general supervision of clearing-house operations, while in others, illustrated by England, Canada and the United States, the bankers associations, constituting the membership of the large clearing houses, supervise and conduct their operations. In England and the United States the clearing houses are separate and independent organizations, whereas in Germany they are under the supervision of the Reichsbank and in Canada they are governed by the Canadian Bankers' Association which prescribes the rules and regulations.

Membership in German clearing houses is restricted to the Reichsbank, its branches, the large commercial banks and the postal check bureaus. In England the dominant banks only are admitted to full membership. The Bank of England is part member, that is, it clears items on members but drafts drawn on it held by members are not cleared. The

drafts are paid by direct credits to the members' accounts carried with the Bank. In addition to the ten member banks and the Bank of England, there were, in 1921, 93 banking offices represented in the Town Clearing of the London Bankers' Clearing House Association. The London branches of Scotch banks, colonial banks, and other large institutions are not members. With few exceptions, membership in Canadian clearing houses is confined to the eleven chartered banks and one or two chief branches of each bank in the largest cities. Not all banks are members of clearing houses in the United States. The New York Clearing House Association, for example, imposes high standards upon its members which automatically bar the weaker banks. The Federal Reserve Bank of New York participates in the clearings and serves as the settling agency but has no voice in the management of the Association. The Federal Reserve Bank of Boston, with the introduction of par clearance, took over the operations of the Boston Clearing House Association. In the other Federal reserve districts the Federal reserve banks and branches participate in the clearing operations. Country clearings and collections by the Federal reserve banks have tended to eliminate the country clearing houses.

In every country there is a close relationship between the central banks and the clearing houses. In fact, clearing may properly be regarded as a function auxiliary to central banking. Tangible expression of this point of view is in evidence in all the countries considered. In many instances the central institutions are endowed with supervisory powers, exemplified in Germany, Italy and Russia, whereas in others there exists a close working arrangement. The Federal Reserve Act empowers the Federal reserve banks to perform clearing and collection service for their members and authorizes the inauguration of the necessary machinery. Exercis-

ing its authority under the Act, the Board created the Gold Settlement Fund to provide a central clearing agency similar in principle to the deposits of clearing house members carried with their central banks. The central clearing fund in Canada was established for the same purpose. The trustee of the fund serves the chartered banks with national clearing facilities not unlike the services performed by the Federal Reserve Board through the Gold Settlement Fund and the central banks with the clearing deposits carried by members.

Details of operation vary considerably. They are the result not only of law and banking custom, crystallized into legislative enactment after long periods of usage, but also because of economic and geographical factors. Decentralized clearings in Canada and the United States are in contrast to the centralization of clearings in London for England and Wales. The system in Germany is similar in some respects to each of the foregoing organizations. The Reichsbank domiciles the local clearing house associations in its head office and branches throughout the Reich and serves as the depository and clearing agency for the associations. Centralization of clearings is practicable despite geographical distances. Concentration of supervision and clearing services exists. The Gold Settlement Fund under the supervision of the Federal Reserve Board and the clearing fund in Montreal deposited with the Royal Trust Company as central trustee provide for the centralization of national clearings. Thus, in fact, national settlements are centralized in all countries.

Clearings continue as a separate function despite banking concentration and the operations of central banks. In Germany the number of clearing houses is gradually increasing, there being 17 in 1908, 37 in 1920 and 71 in 1929. Owing to geographical compactness, there are only a few clearing associations in the British Isles. In addition to the central

clearing association in London, which clears town, metropolitan and country items, there are provincial clearing houses confined to the eleven largest cities and vicinities. Dublin, Belfast, Edinburgh, Glasgow and other leading cities have clearing associations for their respective districts. In Canada there are 32 clearing house associations situated in the more important cities throughout the Dominion. They are divided into large districts with clearing centers in Montreal, Toronto, Winnipeg and Vancouver. The banks in the various districts settle their clearing balances by draft on the head clearing branch of the district and the four clearing centers settle through the central clearing fund in Montreal. In the United States there were at the beginning of 1931, 391 clearing house associations. Local clearings may be effected in communities where there are four or more banks. These local organizations usually settle by drafts on city correspondents or on the Federal reserve banks of their respective districts, if they are members of the Federal Reserve System. Settlement of inter-district clearings is effected through the Gold Settlement Fund.

The magnitude of clearing operations is prodigious. The clearing houses of Germany cleared more than 46 million items in 1929 exceeding 126 billion Reichsmarks in amount. The percent of offsets was 76.7, the balance of 29 billion Reichsmarks being settled by credit to the members' giro accounts carried with the Reichsbank. Of the 126 billion Reichsmarks, local giro transfers constituted 58.5 per cent, postal checks 7.6 per cent, other checks 17.9 per cent, drafts 11.2 per cent and miscellaneous items 4.8 per cent. Total clearings in London amounted to £44,896 million in 1929, 88.9 per cent of which consisted of Town Clearing, 4.1 per cent Metropolitan Clearing, and 6.8 per cent Country Check Clearing. The Provincial Clearings exceeded £1,599 million. Canadian clearings in 1930 exceeded 20 billion dollars. The

percentage which was settled through the central clearing fund is not available. In the United States clearings for 1930 approximated 554 billion dollars of which 347 billion dollars were cleared in New York City where settlement is effected through the Federal Reserve Bank. New York clearings include both city and country items. Use of the Federal reserve transfer mechanism is indicated by the volume of clearings and transfers through the Gold Settlement Fund, which amounted to 146,943 million dollars in 1929.

The foregoing statistics do not include branch clearing operations. The relatively few banks with a large number of branches in England, Germany and Canada and an increasing number of branches in the United States prevent the presentation of a complete picture, inasmuch as intra-bank clearing data are not available.

It is evident that in both Germany and England the central banks are the center of clearing operations and that reserves to settle clearing balances are maintained with them by member institutions. Thus funds are constantly fed into the central banks. Such a statement is not equally true of either Canada or the United States. By comparison Canada suffers more. The central clearing fund is provided by the chartered banks and, owing to the absence of a central bank, is administered by a special trustee. General supervision over clearings is exercised by the Canadian Bankers' Association, but the arrangement does not lend itself to the concentration of reserves beyond clearing requirements characteristic of central banking and its somewhat modified form in America. Clearing and collection operations in the United States serve as constant feeders of funds into the Federal reserve banks. Par clearance and collection are largely responsible for the general concentration of funds in the Federal Reserve System. Thus, the advantage of universal par clearance is obvious.

The variation of clearing operations in the countries considered warrants a restatement of their essential characteristics. In London there are three areas into which banks are grouped for clearing purposes, namely, Town, Metropolitan and Country Check Clearings. This classification is based on the length of time necessary to reach the clearing house. Town clearings are confined to items drawn on banks and their branches within five or ten minutes' walk of the clearing house. Metropolitan clearings are within a radius of about five miles or approximately thirty minutes of the head office; they include the suburbs of London. Country check clearings include checks only and these are drawn on practically all of the provincial towns in England and Wales. London, in contrast to decentralized clearings in the United States, is the clearing center for all England. Country items not cleared through the country check clearings are collected by the large clearing banks through their numerous branches or occasionally through agencies. The London bankers boast of the rapidity with which checks are collected, owing to the continuous and frequent presentation in the afternoon following the regular clearing. In addition to the three classes of clearings in London, there are provincial clearing houses in districts embracing the large cities and the immediate vicinities. The bankers in small towns having four or more banks also effect clearings, whereas in the smallest communities weekly settlements, instead of clearings, are made.

Germany presents a more complicated clearing mechanism owing to the large number of institutions which clear items arising in connection with the conduct of their primary operations. Then, too, the use of both the check and giro transfer further involves the procedure. Both the Reichsbank and the Postal Check System employ the check and giro systems. Cooperation of a variety of institutions is re-

quired in German clearings and collections. The most important organizations are the Reichsbank, Grossbanken and Postal Check System, but clearing houses are also necessary to clear local checks, country checks, checks of mortgage banks, giro and checks of savings banks and credit associations, and securities.

Giro transfers in large cities are offset by a clearing organization which may maintain accounts for the various members or simply facilitate clearing operations. Settlement of balances in the first instance is made by book entries in the accounts of the members; in the second instance, other means of payment must be arranged. Practically all clearing organizations for giro transfer maintain accounts for settlement purposes with the Reichsbank and its branches. Giro clearings require separate entries for each clearing item, consequently they are much more cumbersome than check clearing. Giro transfers approximate 60 per cent of the total operations of the clearing houses. Although the clearing technique is more cumbersome in the giro system than in the check system, nevertheless inter-city giro transfers require considerably less time than check payments.

For the convenience of its customers and also for the occasional use of others, the Reichsbank maintains giro transfer accommodations, which facilitate payment by either giro transfer or by currency. Although the secondary branches of the Reichsbank may transfer with each other directly, it is customary for them to clear indirectly with the main office through the appropriate main branch. Clearings are centralized in Berlin where all reports of transfers are assembled. That is, clearings of giro transfers are effected at the main office in Berlin, but the transactions of the secondary branches are cleared and balances adjusted through accounts maintained by them with their designated main branches; the main office of the Reichsbank in Berlin

merely credits the account of the receiving main branch and debits that of the paying main branch. No accounts of secondary branches are carried with the main office in Berlin.

The Postal Check System in Germany is utilized by retailers, professional people, departments of government and by large firms for the convenience of their customers. But large payments are usually made by check or Reichsbank giro transfers. Transfers are made among the post offices anywhere in Germany. The internal clearing of transfers among the thirteen postal bureaus is centralized at the head office in Berlin, but the intra-bureau clearings are effected through the bureau offices. The clearing operations of the Postal Check System also utilize the facilities of the Reichsbank. Accounts for clearing purposes are maintained with it by the Postal System, just as the Reichsbank maintains for all its branches postal check accounts with the bureaus of their respective districts. The postal check bureaus are members of the clearing houses, and the items cleared consist almost exclusively of checks deposited with them but drawn on the Reichsbank and the Grossbanken. The items cleared by the banks and their branches through the clearing houses against the postal check bureaus comprise postal checks drawn by their depositors. The result of the clearings is usually a debit balance which is charged against the giro account of the postal check bureau carried with the Reichsbank or one of its branches.

Giro transfers of the Reichsbank and the giro and check systems of the Postal System are internal, but nation-wide, and the necessary clearing operations are also national in scope; whereas the clearing facilities provided by the banks are primarily external in nature and are confined to local clearinghouse operations.

The clearing houses (*Abrechnungsstellen*) are housed in the buildings of the Reichsbank and its branches and their

officers are under the general direction of the Reichsbank. Their operations are confined to bills, drafts, checks, vouchers and in some localities to securities, although in most instances securities are cleared by the *Kassen-Verein* organizations. Membership in the seventy-one clearing houses is restricted to the large banks and the postal check bureaus, there being about 768 members at the end of 1929. Clearing procedure is similar to that of clearing houses in other countries.

Operations of the Berlin clearing house comprise items drawn on clearing members at their head offices and branches in Berlin. This restriction is necessary under the existing custom as no check is paid until the drawer's account has been examined. Out-of-town checks are thus automatically barred, and until the organization in 1910 of the country check clearing office in Berlin (*Scheckaustauschstelle*), checks on country banks were presented to their Berlin offices by messengers. Membership in this clearing house for out-of-town checks consists of members of the clearing house. There were 20 associated institutions in 1929. Two clearings are made each day in a room of the Reichsbank, but settlement is postponed five days and is then combined with the other clearing settlements of the *Abrechnungsstelle*.

Another institution in Berlin, the *Bank des Berliner Kassen-Vereins*, performs rather unique services. In addition to its main function, clearing of securities, it also clears invoices and checks. Members carry accounts for these purposes with the *Kassen-Verein*. When invoices are presented the account of the seller is immediately credited, subject to collection, and the amount entered in his pass-book, while the account of the purchaser is debited, although the invoice has not been submitted to him for approval. The clearing principle is here applied, for the process ascertains the net balances during the day for each member and when

determined a single entry to his account suffices. The seller has immediate use of the credit in his giro account even though the final charge is not made against the account of the debtor until the next morning when the invoices are handed to his messenger.

The *Kassen-Verein* also clears checks for business firms which cannot qualify for the highly restricted *Abrechnungsstelle*. Although clearings of the latter occur twice daily and are therefore more expeditious, the *Kassen-Verein* renders a real clearing service for its members. The checks presented by members, which are drawn on members of the *Abrechnungsstelle*, are credited to their giro accounts, subject to collection, while checks drawn on members are charged against their giro accounts.

In addition to the clearing services rendered in Berlin by the *Abrechnungsstelle*, the *Scheckaustauschstelle*, and the *Kassen-Verein*, there is another organization which was formed to clear the items ineligible for the other clearings. This organization, the *Eilavis-Verband*, pays all transfers to the Reichsbank giro account of the member banks the same day. Members notify each other by telephone of transfers made; thereupon messengers are dispatched to the *Kassen-Verein*, which serves as a clearing center, where they receive the advices that transfers have been arranged. This routine is carried on until 1:30, but no organized meeting is held for the purpose.

The mortgage bank clearing house (*Hypothekenabrechnungsstelle*) clears for its members both local and out-of-town transactions of mortgage banks, and in this respect differs from the *Abrechnungsstelle*. It is national in character. Clearings occur quarterly. Balances arising out of the clearings are settled through Reichsbank giro accounts.

The savings banks in Germany also have a transfer and clearing system of their own. Depositors, instead of with-

drawing their savings and redepositing them in a savings bank in another community, may have them transferred. A central coordinating organization was formed in Berlin and embraces fifteen associations with a membership of 3,000. This organization, the *Deutsche Giro-Zentralverband* (giro and clearing association of the savings banks), performs a service for the district associations similar to the service they perform in their respective districts. Transfers are facilitated, credits arranged between them and the municipalities and the transfers cleared. The central organization clears inter-district transfers, and, in like manner, the district associations clear intra-district transfers.

Canadian clearing procedure, like the English and American, but unlike the complex German system, is quite simple. There are, however, a few characteristic differences which should be noted. With few exceptions, membership in Canadian clearing houses is confined to the eleven chartered banks. There is no central bank, similar to the Bank of England and the Reichsbank, hence some other method of settling balances is necessary. Bank settlements are provided through the appointment by the Canadian Bankers' Association of a clearing bank for each of the thirty-two clearing houses, the division of clearings into four clearing centers, and the designation of a central trustee to serve as the final clearing agency. This trustee is in Montreal where the final clearings are effected.

Canada is divided into four large districts for clearing purposes. Settlements within the districts are effected at the clearing centers, namely, Montreal, Toronto, Winnipeg and Vancouver. The inter-district clearings, in turn, are settled in Montreal. Intra-district items are cleared by the respective clearing houses, but settlement is made by drawing drafts on the clearing house center of the district. The drafts drawn are cleared by the receiving banks of the centers

on which they are drawn. Settlement is thus made by draft or check, in contrast to inter-district settlements through the central clearing fund by mere bookkeeping transactions. Intra-district settlements are made the following day as the settlement drafts are in transit, whereas inter-district settlements, which are effected in Montreal, occur the same day, as they are authorized by telegraph.

Deposits of Dominion notes and gold are made by each member with a special trustee in Montreal in amounts sufficient to maintain a balance to meet the probable adverse clearing balances. Balances of the clearing centers are communicated to the clearing trustee who makes the appropriate debit and credit entries. Final balances are thus settled by bookkeeping entries, whereas district balances are settled by draft.

Clearing procedure in the United States resembles the Canadian methods more than those of England and Germany. This is due in part to the wide expanse of sparsely populated territory. There is no central bank to coordinate the clearing functions of a large number of clearing houses distributed throughout the country. Centralization in the English sense is impracticable. The clearing houses are local organizations of the member banks and are governed by their own rules and regulations. There is no central supervisory organization similar to the Reichsbank and the Canadian Bankers' Association. Clearing procedure resembles that of other countries. In the large financial centers the technique is more refined but the same principle of offsets is employed. The Federal reserve banks usually serve as settling agents. As members of the Federal Reserve System must keep their reserves with the Federal reserve banks, they have balances which may also serve to settle adverse clearing balances. The reserves are maintained in part by forwarding collection items. Clearing house associations

ordinarily require members to maintain balances with the Federal reserve banks or their branches to be used for settling purposes. Thus, upon authorization by the clearing house managers, the Federal reserve banks debit and credit the accounts of the members as shown by the certified lists. Book transfers in this way effect settlement without the movement of a single penny. There are also other methods of making settlement, but the one commonly used in the smaller cities is by draft on New York or on correspondents in nearby financial centers.

Clearings and collections of out-of-town items are more difficult. Country cash items may be collected through the Federal reserve banks or through correspondent banks. Country clearing houses were also organized to facilitate country clearings and collections, but the collection and clearing services rendered by the Federal Reserve System have largely replaced these institutions.

Charges for collection and exchange are imposed in Canada and the United States. In Canada, where collections are made by the banks through their numerous branches, collection charges are usually made by reciprocal agreement among bankers. The Montreal Clearing House requires its members to charge ten cents per item. The Federal Reserve System has endeavored to minimize collection charges and to eliminate exchange charges. In neither case has it been entirely successful, but great improvement has been made. Collection charges to cover costs are legitimate; exchange charges cannot be defended in America under the present exchange mechanism. Generally no charge is made by the Reichsbank for transfers and collections. A small charge is imposed at times, but in some instances the Bank is satisfied with the use of the funds for a few days. Collections of checks drawn on its branches are handled free, but nominal charges are made for the collection of items drawn on other

institutions. Some of the Grossbanken specialize in collections, for which they charge a very small commission. Collections for depositors are free. Like the Reichsbank, they do not give immediate credit; it is deferred until the transfer of payment has been completed. Canada and the United States also defer availability. In England, the elapsed time involved is short. Collections are easily effected among the branches or by other banks. Costs are small, hence charges are rarely imposed. The English banks collect, through their affiliated institutions or by agency arrangements with domiciled banks, items payable in Ireland, Scotland and the islands.

In London, clearing balances are settled through the Bank of England where the members of the clearing house maintain accounts. In the large cities of England clearing is similar to that at London. If there is a branch of the Bank of England in the city, clearings are made in its building under the supervision of the branch manager, and settlement is made by debit and credit entries to the accounts of members of the clearing house carried with it. Where there is no branch, members take turn in managing the clearing, but settlement is made by draft on the head office of a branch or on a London agent. In the small towns, there are no clearings but the adverse balances of the weekly settlements are paid by Bank of England notes, cash, or more frequently drafts on London. In towns having four or more banks there are daily clearings and settlement is made in the same manner as in the smaller towns. Thus in England, the methods of settling vary, ranging from Bank of England notes, cash, drafts on London agents, to mere book entries.

Settlements in the other countries differ slightly from the English methods. Balances in Canada are settled by draft or book entries. The Reichsbank carries accounts for members of the various kinds of clearing houses and settles by

book entries. In America, balances are settled whenever possible through the services of the Federal reserve banks and branches, and in other instances the usual method is by draft on New York or some other financial center. The movement of funds for such purposes no longer is necessary.

The Gold Settlement Fund, ordinarily comprising more than half a billion dollars, which is owned by the twelve Federal reserve banks and is on deposit with the Federal Reserve Board in Washington, is the keystone of the entire clearing and collection structure. Through it all banks of the country are comprehended in one centralized clearing house where payment of the daily inter-district clearing balances is effected without the physical transfer of money and in an incredibly short time. Transfer of title to funds is effected with ease. Balances may be transferred instantly and with negligible cost. Upon telegraphic communication over the Board's private wires, transfer of ownership in the fund is made by simple bookkeeping entries. The Federal reserve banks will transfer funds between members anywhere in the United States and without charge. It is this gratuitous service which obviates the need for exchange charges formerly justified because of the expenses involved in shipments of specie.

Clearings and collections of checks and other transit items are made in the various countries possessing different kinds of banking systems. In Great Britain and Ireland, where there are a few large banks with approximately 12,400 branches, the method employed is necessarily different from that in this country where branch banking is not so highly developed. However, there is a decided trend in the United States toward branch banking. At the end of 1929 there were 3,547 branches. These figures compare with approximately 9,925 in England, 1,630 in Scotland, 835 in Ireland, 6,800 in Italy, 6,000 in France, 1,700 for the Grossbanken and the Reichsbank and 4,200 in Canada.

Banking developments in the United States during the past decade show an unmistakable trend toward banking concentration. This development is requiring adjustment in the clearing technique. Collection procedure is also subject to change with the transition from a correspondent system in which collections are made between the commercial banks, or by the use of the Federal Reserve System. Par remittance is attainable with the absorption of the small banks which refuse to remit at par. With the development of branch banking there is the probability that the banks will forego the charges for exchange which should be entirely eliminated under our present system of effecting exchanges without cost to the banks. In Canada, collection charges are imposed, but these charges to defray costs of collection are not analogous to exchange charges. Under the Federal Reserve System the former charges are still permissible but the latter are unnecessary.

Machine production, requiring the installation of expensive equipment; improved transportation facilities, entailing the outlay of enormous sums; industrial integration, requiring control of raw materials, means of transport and huge industrial plants housing elaborate labor-saving machinery; communication service, necessitating the expenditure of vast sums for plant and equipment; public utility development to satisfy the insatiable demands of society, calling for capital investment of prodigious proportions, demanded banking facilities of commensurate magnitude. The financial institution of limited resources could not render the necessary service. The pressure imposed by the demands of trade and industry forced the banks to increase their resources. Realizing the importance of improving their service, the bankers belatedly followed the leadership of the enterprisers in their concentration of industry.

Strange as it may seem, the amalgamation movement in

American banking had its precursor in England and Continental Europe. Few commercial countries of importance have witnessed the lethargy manifested in America. Her industrial and commercial development is second to none in the world, yet her banking system, especially prior to 1913, was woefully inferior in some respects to that of other progressive countries. Banking progress in America has been greatly retarded by the prevalent economic and political conception that our banking institutions should operate as free and independent organizations lest our constitutional heritage which bestows upon all the freedom of business intercourse be delimited. Economic force, not dissimilar to the pent-up stream, exerts greater and greater pressure with the passage of time until its forceful impact overcomes the most formidable obstacles. Usually a long period of time is required to effect important social and economic changes but the force of public sentiment in the United States, urged by economic pressure, is demanding immediate improvement in a banking system which has failed to provide the safety and service to be expected of it.

Radical changes should not be made in haste, but a realization of the seriousness of the situation and study of means for ameliorating the condition are urgent. The large number of bank failures in this country, entailing the loss to depositors of huge sums, caused by insufficient investment diversification, the collapse of agricultural prices and the land values, real estate speculation, frozen assets, bad management, embezzlement and similar evils, more or less the result of war and post-war inflation, which tend to increase in number and amount, is responsible, to a large extent, for the changing public sentiment. Small country bankers are finding it increasingly difficult to obtain adequate banking diversification; their city correspondents have failed to provide them with the necessary diversification of paper. Industrial

concentration requires banking facilities obtainable only in the large cities. Confidence in the small banks is shaken and deposits are being removed to stronger institutions in financial centers. With the "drying up" of many small communities, the local bankers experience greater difficulty in their attempts to earn satisfactory profits.

American experience with the unit banking system comprising 22,800 banks, a great many of which are the small country banks struggling to eke out an existence, has tempered the pronounced opposition to banking concentration. In their endeavor to overcome inherent evils of unit banking in small isolated communities which require some banking service but which are too small to support an independent bank, bankers are uniting the small desirable banks which usually show some profits into chains and groups. The undesirable ones fail. The motive prompting the movement was frequently the desire for personal aggrandizement, but in some instances attempts were made to forestall failure. Regardless of the motive, the trend toward banking concentration is unmistakable.

It is obvious that concentration results in fewer institutions with larger resources per unit. Some form of agency thus becomes necessary or the small communities which are unable to support an enlarged bank will be deprived of needed banking service. The logical outcome is branch banking, owing to its superiority over chain and group banking. The foundation is being laid for such a system; the small country bank is foredoomed; the concentration movement is on us—it is inevitable. Legislation is essential to its proper development. Present opposition to branch banking is primarily political and argumentative, whereas the demand for the system is economic and real. In time economic pressure will triumph. Political boundaries are not economic boundaries, and monopoly is no longer feared

but regulated. Experience teaches the superiority of a banking system which permits the concentration of reserves, facilitates the free flow of funds, places the banking resources under the care of competent management, reduces bank failures, permits greater diversification and encourages enlightened cooperation of bankers who recognize the advantages of competition and also the disadvantages of a wide diffusion of banking power.

So far as possible, the movement should be voluntary, but enforced concentration in Italy, for example, seems to be producing salutary effects. There the weak banks are either forced to consolidate into strong institutions or to liquidate. Drastic legislation is forcing upon the Italian bankers a safer banking system. In most countries the initiative of bankers operating under liberal governmental regulation has provided banking systems which are dominated by a few powerful institutions. Branches give them contact with all parts of the country, funds are collected through deposits and shifted at will, banking reserves are concentrated and their potency thereby increased. Failures are rare. Interest rates throughout the territory tend toward uniformity. Small communities are served, but their deposits are protected. Less capital is required to operate their branches than would be necessary in unit, chain, or group banking, but the profits are said to be greater.

The need for banking reform in America is fully recognized, but the nature and extent of the changes invoke opposing remedial measures. Will the development in the United States resemble the high degree of concentration characteristic of England with her geographical compactness or is such a centralization impossible in a country such as ours with its diversified industries extending over immense areas? It is improbable, in fact undesirable, that a sudden change to such a banking system take place. Regional de-

velopment in trade areas not necessarily confined to state boundaries would be a desirable objective, and with additional experience and a trained personnel the branch system could then be expanded into a national organization. Present developments, which comprise about 25 per cent of the banks in the United States, indicate a movement, still somewhat in an embryonic stage, which augurs a concentration of banking resources of major proportions, American preconceptions of individual initiative to the contrary notwithstanding.

Banking concentration is usually confined to state boundaries, Federal reserve districts, or trade areas, but there are a few illustrations of nation-wide systems under the control of large holding companies. Liberalization by Congress of branch banking laws to direct the movement is not unlikely, and with it there will be formed larger systems under the control of a comparatively few dominating institutions situated in the various financial centers. At present, concentration has not assumed a trend definite enough to permit an unqualified prediction of future developments. Will America modify her banking system to embrace either regional or nation-wide chains, groups, or branches, or shall we return to the small unit bank? The latter is very unlikely; the former in some form, probably branch banking, appears inevitable.

The local banking groups being formed in each economic zone will likely merge, in time, into regional groups and ultimately into national organizations having their coordinating offices in the financial centers. Should the development incline to group banking, as is quite probable under existing laws, the transition to branch banking would require little more than legal sanction.

Clearing and collection procedure would be affected by such a development. Anticipating the probable concentra-

tion similar to the methods mentioned, the author has described the clearing and collection machinery employed in Canada, England, Germany and by two large organizations in the United States, one with a state-wide branch system and the other confined to Greater New York City. The mechanism demonstrates the feasibility of a nation-wide clearing and collection system under branch banking.

It is the author's contention that universal par clearance in the United States cannot be attained under our present banking system but that there will likely be further defections from par clearance with the passage of time. Banking concentration, however, presents a more optimistic outlook, for the enlightened self-interest of a group of large institutions—in contrast to that of thousands of small banks which depend on collection and exchange charges for a substantial percentage of their revenues—will induce them to remove unnecessary tolls imposed on business enterprise.

Current recommendations that state banking laws be superseded by national legislation which would place all the banks under Federal control are plausible but such drastic changes in the near future are highly improbable. To carry over the lax state laws relative to capital and reserve requirements would be suicidal, but large capital requirements would automatically eliminate banks in the small communities. Banking facilities are needed there although the business is too small to warrant independent unit banks, hence branches or agencies would be inevitable.

Regardless of the particular type banking concentration might ultimately assume, and whether under State or Federal control, the development is necessitating changes in clearing procedure. Groups of banks dominated by holding companies will find it to their advantage to handle all intra-system items within their respective systems. Likewise, the branch banking system will find that a substantial percentage

of items will be payable within the system, thereby requiring an internal clearing mechanism.

The variety of items eligible for clearing in the United States is not likely to increase. At present the list is restricted to checks, clean sight drafts, bills of exchange, and notes and acceptances drawn upon or payable at clearing house members. The clearance of invoices, as performed by the *Kassen-Verein* in Berlin, has its possibilities in this country. However, there is no need for clearing bank notes, as practised in Scotland and Canada.

Improvement in our clearing and collection system must be confined largely to a closer cooperation between the banks and the Federal Reserve System. The machinery is adequate or can easily be made so, but many institutions choose to continue the correspondent system. Banking concentration will likely result in greater use of the Federal clearing mechanism.

Perhaps the most promising improvement that could be made is a closer working arrangement between the various clearing houses and the Federal reserve banks. A plan could be adopted similar to the German system wherein the Reichsbank acts as clearing agent for the clearing houses throughout the Reich. An adaptation of that method is already being employed in the Second Federal Reserve District where the Federal Reserve Bank of New York settles clearing balances for nine clearing houses within its district. According to the arrangement, clearing balances are settled through debits and credits by the Reserve Bank to the reserve accounts of members. Non-members of the Federal Reserve System who are members of the clearing houses settle their clearing balances through their New York City correspondents who are members. This plan commends itself to other districts where it could be used to good advantage.

County clearings, now confined to the First, Second and

Third Federal Reserve Districts, have been in successful operation for quite some time. There seems to be no logical reason why this system should not be inaugurated in other districts. The clearing arrangement would cover areas in which overnight collections could be made and the balances settled through the Federal reserve banks and their branches. In this way county clearings could be speeded up. Development along this line depends on the initiative of the Federal reserve banks with the active cooperation of local bankers.

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