

REBUILDING THE CHILD

A STUDY IN
MALNUTRITION



FRANK HOWARD RICHARDSON

By FRANK HOWARD RICHARDSON, A.B., M.D., F.A.C.P.

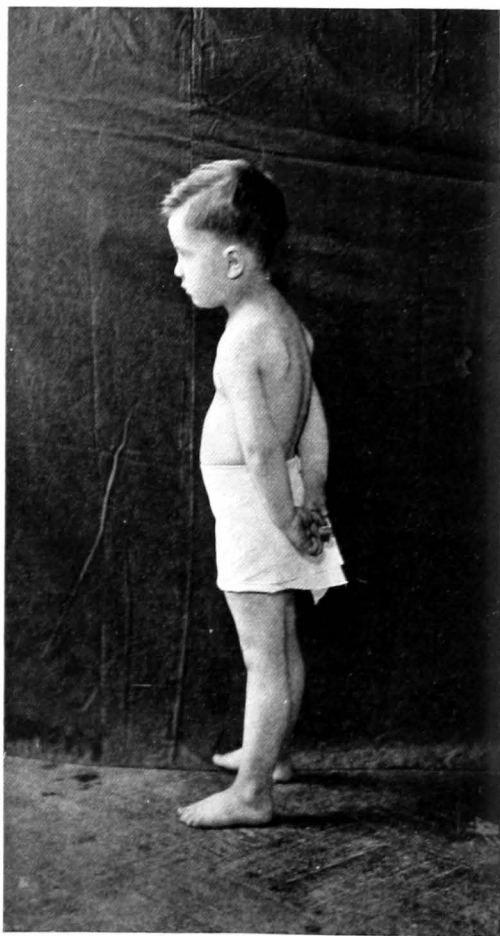
SIMPLIFYING MOTHERHOOD

PARENTHOOD AND THE NEWER PSYCHOLOGY

THE NERVOUS CHILD

REBUILDING THE CHILD: A STUDY IN MALNUTRITION

REBUILDING THE CHILD:
A STUDY IN MALNUTRITION



Rebuilding the Child

A STUDY IN MALNUTRITION

By

Frank Howard Richardson, A.B., M.D., F.A.C.P.

BROOKLYN — NEW YORK

Author of "Simplifying Motherhood," "Parenthood and
the Newer Psychology," "The Nervous Child," etc.

WITH AN INTRODUCTION BY

William R. P. Emerson, A.B., M.D.

Professor of Pediatrics,
Tufts College Medical School, Boston, Mass.



G. P. PUTNAM'S SONS

NEW YORK — LONDON

The Knickerbocker Press

1927

Copyright, 1927
by
Frank Howard Richardson



Made in the United States of America

To
CORNELIA MORSE RAYMOND
OF
VASSAR COLLEGE

Builder and Rebuilder of Lives
who, as "Aunt Nellie," told stories which to
us outdid the Iliad and the Odyssey;
who has touched no life without influencing it,
and has influenced no life but for good;

THIS BOOK IS DEDICATED
by one whose life bears constant testimony
to her love

viii EDITORIAL FOREWORD

child, is now available. Emerson in Boston, Charles Hendee Smith in New York, and the writer of this book in Brooklyn and the South, have for several years past been writing and teaching a suitable technique to doctors, nurses, teachers and parents, with a constantly enlarging degree of success.

The nurse bears a very heavy proportion of the load, in the care of these children. Especially is this the case when they are gathered together in nutrition classes. Because of the nurse's responsibility and because the technique described is applicable to the handling of many other phases of children's work, the presentation of this book in the form of a series of articles appearing in *The Trained Nurse and Hospital Review* was especially appropriate.—EDITOR.

PREFACE

THE welfare of any child may very fairly be considered to be the resultant of four forces or influences which are constantly being brought to bear upon him. These four forces are: the parent, the teacher, the doctor, and the trained nurse. This is but a shorter way of expressing the problem, allowing each of these factors to stand for a whole constellation of influences. The parent represents the myriad environmental agencies of the home, together with whatsoever there may be of heredity; the teacher stands for the new and amazing transforming processes that are initiated when the youngster first takes his books under his arm and starts out from home to begin his education; the doctor, the illnesses and the remedies for them with which he will doubtless be plagued for years to come; and the nurse, the health agencies with which he will come in contact in home, school, commun-

ity, church, wherever he mingles with his fellow mortals as he lives his life and does his work. The fact that every one of these agents approaches his orbit with the best intentions in the world is of course very encouraging, and altogether as it should be. But this does not obviate the difficulties in the path of the child. For unless every one of these agents is a super-man or woman, the chances are, as experience has shown, that our poor youngster is going to stand in sore need of deliverance from his friends. No conscientious parent needs to be told of the countless ways in which he is constantly offending; any issue of an up-to-date pedagogical journal will confess the hopeless inadequacy of even our best schools, as well as the overwhelming and appalling sins committed in the name of education in the average institution of learning; the doctor and the public health agency are always bemoaning the things that they cannot do, and confessing the inefficiency of what they are attempting to accomplish. It is for just these reasons that such a book as this finds place at this time. It is an attempt to take stock of what may result from some

of the things that these four agencies are doing, and from some of the things that they are allowing to continue unchecked, in terms of the welfare of the little lives which the law, and society in general, consider society's most priceless possession.

There are two distinct senses in which the word "nutrition" may be used in work with children. The first is that which concerns itself with vitamins and amino-acids, with brown bread and fresh milk, with fat-soluble "A" and water-soluble "B," with orange juice and cod liver oil, with digestion and assimilation of ingested food. Important as all this is, it is touched upon only incidentally here. The other sense of the word "nutrition," is that in which the whole economy of the child is summed up in this one word, simply for the want of a better one. In this sense, all the influences that impinge upon the child are considered, whether these be hereditary or environmental, emotional or mental, physical or spiritual, salutary or the harmful reverse. Diet, when the word "nutrition" is used in this sense, bears but a small part of the praise or blame attaching to the condition

of a given child; for it is but *one* of a number of factors, each of course important, but none of overwhelming influence in the end-result. Too often has diet been corrected and improved to the point of theoretical perfection, without getting the faintest improvement in the "nutrition" of the child in the sense in which we are using the term, for workers with children to be willing to content ourselves with remedying this one factor. It is the whole-frontedness of the attack upon the problem, which commends the program here mapped out and recommended.

One more point should be brought out, in this very sketchy view of the subject. That is, that whereas most schemes for the improvement of the health of ailing individuals concern themselves chiefly with *what* is to be done, without giving either the doer or the victim any very hopeful words as to just *how* the remedial measures are to be put across, the plan herein outlined covers both these points. Most of us adults who deal with children,—whether we be parents, teachers, nurses, or physicians,—being fairly well educated folk, know quite well what we *ought* to do for our

PREFACE

xiii

children. The hitch comes in when we try to *do* the proper thing. The regimen here recommended attempts to solve this difficulty, to bridge this gap, by supplying an incentive which will be powerful enough to make the child *want* to do the thing that we want him to do. This is, in the last analysis, the message of this book.

INTRODUCTION

BY

WM. R. P. EMERSON, A. B., M. D.,
BOSTON

IT is a matter of great satisfaction to the worker in a particular field to observe the increasing attention which its problems receive. The finding and correcting of the causes of malnutrition or physical unfitness should be an important part of the work of any physician; and his adoption of the nutrition class method, called by the late Dr. L. Emmett Holt "epochal in the treatment of children," increases his effectiveness many fold.

In a sense the nutrition program is a call for the extension of the care given to infants—one of the greatest achievements of modern medicine. The pre-school and elementary school years have thus far gained most by this

larger undertaking. During recent years the adaptation of this program to young people entering industry and to college students has been signally successful.

An outstanding feature of work thus far is the increasing appreciation on all sides of the significance and importance of health intelligence. In the early years this responsibility lies largely with the parents; but as the child advances in age the problem becomes more and more his own. Accompanying this development is the corresponding growth in appreciation of the necessity of accurate health diagnosis on the part of physicians.

Even at the present time the word health is generally accepted to mean a condition of body free from physical disease. By disease is meant any departure from health presenting marked symptoms. On the basis of the definition of these two terms a child who does not exhibit some one of the specific diseases listed in medical textbooks and upon whom no distinct diagnosis of illness has been made is considered well and is treated as such.

Impairment of growth and development may be of a grave nature, yet if the child

does not manifest a clearly defined disorder he is still considered well, although in this realm of pseudo health there often may lie the early stages of practically all the chronic conditions, including tuberculosis.

The training afforded the student in the medical school develops high intelligence regarding disease, but does little to increase his understanding of health. Therefore, later when he enters the health field he falls back upon routine and rationalization, which, according to Osler, are the two greatest foes to medical progress.

Unfortunately, when a parent, realizing that the child is below par, insists upon a careful and complete examination for the cause, the physician often resents any attempt to change his method of approach. The parent does not care about labels but does know something should be done. Practically all that many physicians do in such a situation is to send parent and child home to return when the difficulties have gone far enough to be classified in medical pathology.

For this reason the health problem, aside from its end-result, disease, is left largely to

the mercies of any one who may chance to be interested in it. It is the no man's land, wherein is found the dietitian, the physical educator, the social worker, the teacher, and others who in a well-organized health plan would be valuable aids and adjuncts.

The victim of this condition of affairs is the growing child; and back of it loom sickness and death,—a morbidity and mortality that increase with the complexities of modern life.

Much confusion has arisen because the problem, as soon as it is attacked, gives evidence that, although medical, it is also educational and social in its nature. This offers immediate opportunity to the lay worker, who is quite right in the essence of his vague feeling that social diagnosis is required. It is largely the fault of our profession not to have made it equally clear that the problems are essentially medical, and that those who can deal best with them are physicians, with their necessary knowledge of pathology enforced by training in positive, constructive health diagnosis and preventive medicine.

Dr. Richardson has done valuable work in

INTRODUCTION

xix

this new field; and it is fortunate that he has taken the time to put his experience in book form, for the inspiration and guidance of all who are concerned in the welfare of the growing child.

CONTENTS

	PAGE
EDITORIAL FOREWORD	vii
PREFACE	ix
INTRODUCTION	xv
CHAPTER	
I.—AN OLD DISEASE IN A NEW GARB	3
II.—MAKING THE DIAGNOSIS OF MALNUTRITION	13
III.—FAULTY HEALTH HABITS	33
IV.—FAULTY FOOD HABITS	46
V.—FAMILY STRAIN	71
VI.—SCHOOL STRAIN	81
VII.—PHYSICAL DEFECTS	97
VIII.—FATIGUE	119
IX.—THE NUTRITION CLASS IDEA	130
X.—THE NUTRITION CLASS	143
XI.—HOME TREATMENT	164

CHAPTER	PAGE
XII.—MALNUTRITION AND MEASURED FEEDING .	168
XIII.—NUTRITION AND THE OVERWEIGHT CHILD .	186
XIV.—POSTURE	207
XV.—MENTALITY AND MALNUTRITION . . .	223
XVI.—THE CURE OF MALNUTRITION	231
XVII.—WHAT HAS BEEN WRITTEN ABOUT MAL- NUTRITION	242
APPENDIX	251

ILLUSTRATIONS

	FACING PAGE
THE NORMAL CHILD	<i>Frontispiece</i>
FIG.	
1. TYPICAL CASE OF MALNUTRITION	14
2. TYPICAL CASE OF MALNUTRITION	14
3. WEIGHING: WITHOUT SHOES OR OUTER CLOTHING	16
4. WEIGHING: STRIPPED WEIGHT	16
5. MEASURING: WITH MEASURING ROD	20
6. MEASURING: AGAINST THE DOOR JAMB	20
7. WEIGHT—HEIGHT—AGE TABLE FOR BOYS	22
8. WEIGHT—HEIGHT—AGE TABLE FOR GIRLS	23
9. DETERMINING DESIRED WEIGHT FOR GIVEN AGE, HEIGHT AND SEX	30
10. TABLE OF AVERAGE WEIGHT FOR HEIGHT	42
11. ONE OF THE SMALL FORMS THAT SEEMS WELL WORTH OBSERVING	66

FIG.		FACING PAGE
12.	A SMALL TABLE WITH SMALL UTENSILS FOR SMALL FOLKS	66
13.	"LET HIM BE AS ONE WHO SERVES"	68
14.	SOME CHILDREN EAT BEST WHEN GIVEN A TABLE BY THEMSELVES	68
15.	THE BEST PLACE FOR COMPLETE RELAXATION —ON THE FLOOR! A FOLDED ARMY BLANKET MAKES A SOFT ENOUGH MATTRESS	74
16.	A POPULAR RESORT	74
17.	PLAYGROUND ON A CITY ROOF	82
18.	BREAKFAST	152
19.	DINNER	152
20.	MID-MORNING OR MID-AFTERNOON LUNCH	154
21.	SUPPER	154
22.	HISTORY AND PHYSICAL EXAMINATION CHART (PRIVATE)	96
23.	HISTORY AND PHYSICAL EXAMINATION CHART (HOSPITAL)	98
24.	A "SLIPOVER" FOR EXAMINING; WEIGHING AND MEASURING	26
25.	WALL CHART	142

ILLUSTRATIONS

XXV

FIG.		FACING PAGE
26.	THE RECORD	144
27.	48-HOUR FOOD RECORD	178
28.	BEGINNING OBESITY	206
29.	RELAXED POSTURE	208
30.	FIXED HIGH CHEST	208
31.	TOES STRAIGHT FORWARD, FEET SLIGHTLY APART	218
32.	RISE ON TOES	218
33.	ROLL OVER ON OUTER BORDERS OF FEET	218
34.	HEELS OUT	220
35.	TOES STRAIGHT FORWARD. REPEAT AGAIN AND THEN RETURN TO STARTING POSITION BY THROWING TOES IN, HEELS STRAIGHT, ETC.	220
36.	PLACE SOLES OF FEET TOGETHER WITH KNEES WELL BENT AND HIPS ROTATED OUTWARD	220
37.	PUSH FEET AS FAR AWAY FROM BODY AS POS- SIBLE, KEEPING THE OUTER BORDERS OF FEET TOGETHER	220
38-9.	PICKING UP MARBLES WITH THE TOES AND PLACING THEM IN A CERTAIN PLACE OR RECEPTACLE. EACH PERSON IS GIVEN AN	

FIG.		FACING PAGE
	EQUAL NUMBER AND EACH FOOT MUST BE USED THE SAME NUMBER OF TIMES. COM- PETITIVE GAMES MAY BE ARRANGED TO ADD INTEREST	222
40.	USING THE TOES TO MOVE A TOWEL UNDER THE FOOT	222
41.	WALKING A STRAIGHT LINE WITH THE BODY IN THE ERECT POSITION	224
42.	(1B)—PLACE BALLS OF FEET ON TABLE RUNG WITH FEET PARALLEL	224
43.	(2B)—LIFT THE REST OF THE BODY BY EX- TENDING THE TOES	224
44.	A REDUCED FACSIMILE OF THE NUTRITION CLASS DIPLOMA	234

APPENDIX

A NEW NUTRITION CLASS AT THE BROOKLYN HOSPITAL¹

ANYONE who has served in a children's clinic realizes that there is a large percentage of cases that refuse to improve beyond a certain point considerably this side of complete recovery. Medicines, and such directions as we can give regarding proper food and hygienic conditions, seem helpless to carry the child further. Such children, if one takes the pains to weigh and measure them, will be found to weigh far less in proportion to their height than the average child does at the same age. Wm. R. P. Emerson, of Boston, goes so far as to say that one-third of our total child population belongs to this group of under- or mal-nourished children, with weights at least 7% and often 10% or more, below the average. It is for such children as these that the Nutrition Class has been established, and has quickly come into its own as an indispensable part of the up-to-date children's clinic. Emerson has found, and the records of the Nutrition Class established at Bellevue by Charles Hendee Smith bear out the statement, that practically all of these chil-

¹ "Long Island Medical Journal," Jan., 1920.

dren can be made to gain enough to bring them up to the normal or average weight for their ages, providing certain conditions can be fulfilled. But these conditions can not be brought about through the ordinary medical pediatric clinic. They require the application of the joint forces of medicine, social service, and class appeal, if you will,—and the application of these in the proper proportions has resulted in the evolution of the Nutrition Class, as seen today in operation in the more advanced hospital clinics. Here, each child is given a searching examination, with a view to determining any defect that may be a contributory cause of his failure to gain; and his history, in great detail, is taken by a volunteer aide. An important part of the record is the weight and height, and their progress from week to week, as plotted out on a large graphic chart, where it is easy to make comparisons, favorable or otherwise, with a normal line. Each child is brought under the purview of a trained social service worker, in his home environment. She makes an initial visit to the home, and such follow-up visits as may prove desirable. She instructs him, and his mother, how to carry out improvements along lines sanitary, hygienic, dietic, and culinary. Each child is appealed to, by way of his love of team-play with his fellows, his delight in competition with them, and his desire for rewards, to do his best to carry out the little things that spell success in the game that they are all playing,—success as expressed in terms of pounds and ounces gained, with all that that means in general health betterment. The Nutrition Clinic, then, is the

place where all the forces that go to make for better health are focussed on the child.

There are three institutions which may well house the Nutrition Class. They are the school, the settlement house, and the hospital dispensary. Because the sufferers from this clinical entity, malnutrition, just beginning to be recognized and treated as such, are congregated in the school (and many of the causes of its creation and perpetuation are in operation there), the public school may well be chosen as the place for this remedial agency to function. Emerson's first public demonstration of his work with undernourished children was done in a few picked schools in the East end of Boston and the East Side of New York, ably seconded by the School Lunch Committees. Inasmuch as the problem is quite as much a social as it is a medical one, the settlement house and the A. I. C. P. have both established clinics,—although, for the matter of that, the children of the wealthier classes have been found to furnish the same proportion of cases as do those of the very poor! But, since practically the first thing to be done, before one can hope for a gain in these cases, is to remove the flagrant physical defect that is almost sure to be present (carios teeth, diseased tonsils and hypertrophied adenoids are the commonest offenders), or else improve it as much as possible (endocarditis, tuberculosis, and hypertrophied lymphnodes come a close second), the hospital, through its children's clinic, would seem to be the ideal home for this form of effort.

The Massachusetts General in Boston and the Post

Graduate and Bellevue in New York, have been the pioneers in these cities. In Brooklyn, the Brooklyn Hospital has been the first to render the larger service made possible by the addition of the Nutrition Class to the other departments of its pediatric service. The volunteer workers who take the histories and weigh and measure all cases coming into the clinic refer to the Nutrition Class all children that are 7% or more under weight. Unlike the procedure in the case of the Cardiac Class, or other departments, this does not transfer the child from the medical pediatric service proper; he is still carried there, and there treated for whatever condition brought him in. Teeth, nose and throat, or heart are attended to in the appropriate rooms, while the nutrition is seen to in the Class. Propaganda posters, large individual record charts, wax models of food and small rewards, are used as supplementary to the efforts of the doctor who talks to the children (and as many of the parents as can be induced by the visitor or the children to attend), in the big waiting room; while the rest of the physicians examine the new cases and weigh the re-visits in the examining rooms. A good Boy Scout Master usually proves a valuable Nutrition Class leader,—the appeal is of much the same order. One session a week is sufficient for a successful class; later on, as the weight increases, the child is told to come once every two, or it may be three, weeks. The social worker, with her reminder post-cards and her follow-up visits, is a tower of strength in keeping up the attendance.

The Government at Washington, through its Child

Welfare Bureau, is already attacking this problem along a wide front by enlisting the teachers of the country in a health campaign. We shall hear more and more of the malnourished child, in the months to come, and of efforts to bring him up to normal. No hospital can afford to attempt work among children without its Nutrition Class.

WHAT A CHILD SHOULD DEMAND OF HIS DOCTOR¹

The subject of my paper tonight takes it for granted that there are some rights inherent in every individual, which the right-thinking are bound to respect, whether that individual can enforce them or whether he cannot even voice them. Our adult patient frequently knows, or thinks that he knows, what he has a right to demand of his physician. Whether he demands what is best, and whether he gets what he demands, need not concern us now. What we shall insist upon, however, is the inherent right of every infant or child who is brought to a doctor, to receive diagnosis, and prophylactic as well as curative treatment, even though his is but a mute appeal, or though he has no language but a cry. This paper

¹ Read before the Society of the Ex-Internes of the Methodist-Episcopal Hospital, September 25, 1919, at the Montauk Club, Brooklyn. And, by request, repeated before the Pediatric Society of Brooklyn, October 22, 1919.

will discuss an attempt to comply with this unexpressed demand, satisfactory or not, as we conceive of our duty toward one who can insist upon nothing, if we refuse to grant his demand.

I want to present a tentative plan for the complete examination of an infant or child,—a scheme to be carried out more or less completely, perhaps, in individual cases, with a view to securing preventive, corrective and curative treatment of that child. And coupled with that goes the essential requirement, the instruction and inspiration of the mother who brings him.

The plan I am laying before you might perhaps be briefly described as a pot pourri or goulash of half a dozen more or less reputable medical and lay ideals. It embraces a dash of that much quoted old Chinese doctor pay-while-you're-well-stop-paying-when you - get - sick chestnut; a goodly element of the army medical examination (that searched out imperfections which would keep a man from enlisting, only to throw him into the arms of the selective service board, which worked quite as hard to keep him from escaping service!); all of the army's preventive sanitation and hygiene, as well as its serum and vaccine prophylaxis; and a liberal sprinkling of the life insurance examination's grilling, the Health Institute, and the Life Extension plan, with their initial complete examination and recommendations and their periodical re-examinations and checkings up. Stir this up, strain it through the good old family doctor's sanity, and season it with grandma's common sense,—for we need something to give balance and cohesion and propor-

tion to it all. All of these ideas our young mothers and fathers have become familiar with recently, even if they did not know of them before the war. They would like them for themselves; but they are beginning to *demand* them for their children.

Perhaps the nearest approach to what I have in mind, that has thus far actually been put into effect for children, is the nutrition class idea, for the school children of the very poor, that was tested out in two of the public schools of New York City, by Emerson of Boston. Instead, however, of putting the emphasis upon the providing of the proper food elements, and the proper caloric requirements (so necessary in the case of the children of the very poor), our emphasis is placed upon the portion of his work that is taken for granted, but that most of us find far harder to attain, in private practice, than getting the proper food. And that is, the complete and exhaustive preliminary examination of every child who is to enter the class, made effective by the correction of every remediable defect found, before he is admitted to the nutritional class at all! It is this correction of errors that most of us find such a herculean task. Emerson can, and does, bar from his class any child whose parents will not consent to the taking of all the steps prescribed by the examining physician for the remedying of any defects found. But what one of us is prepared to draw a similar line, and refuse to treat any child whose mother declines to have a half dozen carious teeth extracted at our behest, or commence a thousand dollar orthodontal job at once, in order to

retain us as her child's medical adviser? Which of us can honestly say that he has no child in his practice with frankly undesirable tonsils or obstructive adenoid vegetations,—or with a marked astigmatism uncorrected by glasses, or with some other gross error plainly discernible for him who runs to read,—which he has never suggested be corrected because, forsooth, the parent has never directly asked his counsel in the matter? How many of us ever urge protective work for the children of our families,—or need more than the fingers of one hand on which to count the number of families, or even of individuals, that come to us in what they believe to be good health, for a periodical "looking-over?"

In a word, then, this paper voices a plea for four things. First, a complete, detailed, recorded history, and physical and mental examination, of every child within the reach of every practitioner, general or special, who has to do with children, either in private practice or in dispensary work. Second, a clearly written out, simply worded, summary of the child's condition, with definite, comprehensive recommendations as to his future management. Third, a campaign of propaganda of the very best sort,—the person-to-person, doctor-to-mother, "won-by-one" kind,—to improve the children that we already have, leaving it to the eugenist to provide us with better ones in the future. And fourth, a periodical re-examination and checking-up of results, to show the easily demonstrable improvement that such work is bound to produce, and to encourage both doctor and parent to continue in the work of betterment.

I believe that most of us have at some time or other been genuinely embarrassed, and actually at a loss as to just how to proceed, when a father or mother has brought us a child with the request that we "give him a complete examination," as the saying goes, to be repeated from time to time,—surely not an unreasonable request, and quite as surely indicative of a spirit that we ought to encourage, not discourage, on the part of the laity. And yet has not every one of us failed to give such a parent the service he desired, and actually discouraged him from returning at subsequent regular intervals, by the plainly evident uncertainty and lack of method or system with which we approached this uncongenial, because unusual, task? How easy it would have been, how eminently simple, to have fostered this advisory relationship, with all of the good that it would have meant to the child, had we but had a definite line of procedure to follow, instead of our usual rather aimless pulling down of eye-lids for anemia and cursory chest examination, with perhaps a request for a specimen of urine, that as a rule ends the seance. We are quick to respond to the call for the treatment of disease that produces symptoms; but as a rule are quite unprepared to look for health, and evaluate it as improvable or not. Some definite procedure, completed by some form of report by which doctor and parent would know just where the child stood, and whether he was improving, stationary, or retrogressing, would have cemented this relationship, and shown both doctor and parent what to stress and what to be satisfied with in their joint

efforts to improve the condition of the child. A few of us do keep weight charts, and a few of our mothers fill out the weight record that accompanies some of the nursery manuals. But much more, in the way of regularly and periodically ascertaining and showing the parent progress in height, chest expansion, general nutrition, orthopedic correction, and a dozen other vital particulars, is essential, if we are to gain and hold the individual child long enough to give him the service that he is entitled to. All of this can be put into readily assimilable form for the parent, in such a way as to make intensely interesting records for him, as well as most valuable data for the observing and directing physician.

Another field in which the child has a right to demand his physician's services, is that of preventive medicine. To the physician whose conscience is on the job, the relation of his little charges to preventable disease is a matter of some serious concern. It goes without saying, I think, in the light of modern medical thought, that there are three diseases whose appearance among one's patients is as reprehensible (theoretically at least) as is the appearance of bedbugs in a household or lice on an individual,—because quite as preventable! These three are, of course, smallpox, the typhoid fevers, and diphtheria. Not a man here but knows how absolutely preventable these are; and yet I should hesitate to ask for a show of hands to indicate how many of us had, during the past three months, done a Schick test, or administered a toxin-antitoxin

protection against diphtheria, or vaccinated a child against smallpox, or inoculated one against the typhoids, on his own initiative, without having been prodded on to it by an alert parent or by an up-to-date school entrance law. How many of us have made the test for protein sensitization in children with asthma, or eczema, or a susceptibility to colds; or found the offending pollen for a youngster with "hay-fever"; or done a urine examination in the case of a rapidly growing adolescent passing through the turbulent period of reaching puberty,—unless the child's parents actually demanded it of us?

So much for our conception of the problem of the pediatrician. I believe none of you will think I have overstated its requirements. Now for an attempt at aiding at its solution. If you will refer to the contents of the little booklet that I have placed in your hands, I shall attempt to show you my own procedure in approaching this rather ambitious task. Exhibit A (Fig. 1) is the backbone of the whole program; a means of recording the careful history, and physical and mental examination, without which the efforts to be alluded to later would be but an impertinence. For while diagnosis follows careful anamnesis and examination, it certainly must of necessity precede everything else, whether of instruction, prevention, or treatment.

So much for diagnosis,—for diagnosis must precede treatment. But, just as truly, treatment must follow diagnosis; and a *sine qua non* of pediatric practice, in

Name
Ref'd byDate
Born
Age

DIAG.

FIG. 1

FAM. HIST.	Father Name Address Business Ad.		Tel. Tel.	Tb. Lues. Malig. Alcohol Neurotic	Mother Miscarriages	Liv.	Chd.	Dead		
BIRTH HIST.	Premature Full Term	Labor	Length Char.	Chlor-Insts. Asphyxia	Wt.	By Guess By Scale				
FEEDING HIST.	Breast	Entirely Partially		 Mo. Mo.	Every..... Hours Every..... Hours	Why Weaned			
	Bottle Breakfast	Dinner	Milk	Supper	Water	Sugar Btw. Meals	B's Beer	Oz. Tea	Now Gets Should Get Coffee Sodas	Cal. Cal.
PAST HIST.	Measles Scarlet Diph. Roetheln	Rheum. Mumps C. P. Heart	Pneumonia Pleurisy Pertussis Asthma		Tonsilitis Tons. and Ad. Op. Freq. Cold Gast. Intest.		B. Op. Ear	Other Dis's Injuries		
PRES. COND.	Stools Vomiting Sleep	No. No. Hrs. in A.M.	Color Char. In P.M.	Consist. In Night	Amt. Amt. Appetite	Odor Odor Cath.	Min.	{ Before Fdg. After Fdg.		
PRES. HIST.	Chief Complaints									
GEN. IMP.	Fat Thin Emac. Atroph.	Well Nour. Poorly Nour. Rather Pale Very Pale	Bright Stupid Responsive Rosy	Alert Sluggish Over-active Lethargic	Firm Flabby In Pain Dyspneic	Intelligent Anxious Nervous	Mongoloid Rhachitic Adenoid	Cry Snores		
MEAS.	Wt. Ht.	Circ. Head Circ. Chest	T P. O. P. R.		P Rate Char.	R Rate Char.				
SKIN	Color		Disease		Rash	Char.		Distrib.		
DEVEL'T	Holds Head Up Sits Alone		Creeps Stands	Walks Says few words	{		Talks	{ Baby Talk Clearly	Mentality Mental Age	

HEAD	Shape	Font	{ Ant. \ Post	Sutures Craniotab	McEwen's	
EYES	L Vision R Vision	20 20	Ext. Dis.	Strab.	Pupils React to:	L Light R Accom.
NOSE	Shape	Disch.	{ Thick Thin Bloody	Breathing	Adenoids	{ Felt Inferred
EARS	L Hearing R	Canal		Drum		Mastoid Reg.
MOUTH	Tongue Checks	Palate Pharynx		Tonsils L R	Retro. Phar.	Teeth
NECK	Thyroid Thymus	Glands	Ant. Post.			
CHEST HEART LUNGS	Shape			Groove		Rosary
ABDOMEN	Liver	Spleen		Umbil		Genitals
GLANDS	L Axillary R	Epitroch		Mediast (D'Espine's)		Inguinal
LIMBS	Contour Epiphyses	Gait Dexterity		Eyes Open Romberg Eyes Shut	L Hip Joint R	L Feet R
SPINE	Motility	Lordosis	Kyphosis	Scoliosis		
		Brudzinski REFLEXES Kernig		Knee Jerk Ankle Clonus		Babinski Tache

Name
Ref'd byDate
Born
Age

DIAG.

FIG. 1

FAM. HIST.	Father Name Address Business Ad.	Tel. Tel.	Tb. Lues. Malig. Alcohol Neurotic	Mother Miscarriages	Liv.	Chd.	Dead		
BIRTH HIST.	Premature Full Term	Labor	Length Char.	Chlor-Insts. Asphyxia	Wt.	By Guess By Scale	Why Weaned		
FEEDING HIST.	Breast Bottle Breakfast	Entirely Partially Dinner	Milk	Supper	Water	Sugar Btw. Meals	B's Beer Oz. Tea	Now Gets Should Get Coffee Sodas	Cal. Cal.
PAST HIST.	Measles Scarlet Diph. Roetheln	Rheum. Mumps C. P. Heart	Pneumonia Pleurisy Pertussis Asthma			Tonsilitis Tons. and Ad. Freq. Cold Gast. Intest.	Op. Ear	Other Dis's Injuries	
PRES. COND.	Stools Vomiting Sleep	No. No. Hrs. in A.M.	Color Char. In P.M.	Consist. In Night	Amt. Amt. Appetite	Odor Odor Cath.	Min.	{ Before Fdg. After Fdg.	
PRES. HIST.	Chief Complaints								
GEN. IMP.	Fat Thin Emac. Atroph.	Well Nour. Poorly Nour. Rather Pale Very Pale	Bright Stupid Responsive Rosy	Alert Sluggish Over-active Lethargic	Firm Flabby In Pain Dyspneic	Intelligent Anxious Nervous	Mongoloid Rhachitic Adenoid	Cry Snores	
MEAS.	Wt. Ht.	Circ. Head Circ. Chest	T	P.	O. P. R.	P	Rate Char.	R	Rate Char.
SKIN	Color	Disease	Rash	Char.	Distrib.				
DEVEL'T	Holds Head Up Sits Alone	Creeps Stands	Walks Says few words	{	Talks	{ Baby Talk Clearly	Mentality Mental Age		

HEAD	Shape	Font	{ Ant. Post	Sutures Craniotab	McEwen's	
EYES	L Vision R	so so	Ext. Dis.	Strab.	Pupils React to: L Light R	Accom.
NOSE	Shape	Disch.	{ Thick Thin Bloody	Breathing	Adenoids { Felt Inferred	
EARS	L Hearing R	Canal		Drum	Mastoid Reg.	
MOUTH	Tongue Cheeks	Palate Pharynx		Tonsils L R	Retro. Phar.	Teeth
NECK	Thyroid Thymus	Glands	Ant. Post.			
CHEST HEART LUNGS	Shape			Groove	Rosary	
ABDOMEN	Liver	Spleen		Umbil	Genitals	
GLANDS	L Axillary R	Epitroch		Mediast (D'Espine's)	Inguinal	
LIMBS	Contour Epiphyses	Gait Dexterity		Eyes Open Romberg Eyes Shut	L Hip Joint R	L Feet R
SPINE	Motility	Lordosis		Kyphosis	Scoliosis	
		Brudzinski REFLEXES Kernig		Knee Jerk Ankle Clonus	Babinski Tachs	

the very nature of the case, is securing the confidence and cooperation of the parent. For it never was considered good form to say to an infant, "Take a teaspoonful of this medicine three times a day, stop worrying, and take plenty of rest and fresh air," as we have so often said to others of our patients. Besides, taking a teaspoonful of anything, any number of times a day, isn't being done in the best families this year, you know. More and more is the tide turning toward the stressing of diet, nursery hygiene, and a rational regimen; and away from measures pharmacopoeal. And these are so much harder to procure than the old dosing measures, that it may almost be said that the children's man must train his own trained nurse, for each of his little patients. We usually, thank God, have the best probationers in the world, in the young mothers who come to us with an absorbing interest that the most intelligent of "probes" entering our hospitals can never hope to possess; but what of the instruction that we are to give them? If the noblest study of mankind is man, as Pope tells us, at least the most intensely interesting textbook for an adoring mother is the little life that she is watching over with such absorption; and we can, if we will, give her our translation of that document in words of one syllable. Not, though, in the form of this rather technical history and physical blank; a transcript of this would be but a farce. It would be unsatisfactory, unadapted to her needs, worse than meaningless to her, as the dullest imagination can readily conceive. For while missing

the most important points, which she should most certainly have impressed upon her, she would undoubtedly make mountains of some of the mole-hills that we might have mentioned in the course of our routine examination. Then, too, why not give Father a chance to know what has been found out, and to cooperate in the campaign of betterment? He is the one who (at least, let us hope!) is going to pay the bill; why not give him something tangible to show for his outlay; something to take away,—yes, and to show to admiring friends, if you will. But just how shall we express what we want them to know about their youngster?

To answer this, I am going to ask you to turn to the first sheet of the booklet (Fig. 2), upon which an attempt has been made to devise a simplified, humanized, words-of-one-syllable sort of translation of the history and physical, adapted to the comprehension of the layman. And in preparing this do not make the mistake of underestimating the ability of your readers to follow you a considerable distance along the paths of medical parlance. Not a magazine today but caters, either frankly or sneakingly, to its feminine contingent; and the lengths to which they go in discussing medical and social problems, bids us beware not to simplify and predigest too minutely, lest we be laughed at for our pains by a mother who does not care to be condescended to, too patently. The left-hand side of the report sheet gives one an idea of what points can advantageously be brought to the attention of the parents, for their edification and instruction,—and, in the

last analysis, for the betterment of our patient, their child.

When, however, we have done this much, we have gone not even half way. What are we going to do about it? What must we do to be saved? Anyone can give destructive criticism; what about something constructive, suggestive, helpful? An attempt to answer this natural demand is made on the right half of the same sheet. Here, opposite each finding, a notation is made of what we would suggest in the way of remedying the defect noted. This is given in full,—where time and space will permit, without losing a sense of the relative importance of things; by a reference to other sources, where this is necessary. For instance, a consideration in detail of one of our mainstays, diet, would be manifestly impossible here; for this, we refer to the diet slip, where, in addition to the specific diet for the time being, some general principles are dwelt upon which should prove of help to a mother, even if she drifts away and is never seen by us again. For a few of the measurements, a comparison has been made (not with the *normal*, for we want to encourage the mother to feel that her child may differ markedly from the average without sacrificing his right to be considered normal), but with the *average* at his age; in order that what might otherwise be merely so many figures will assume a definite importance and meaning in her mind.

Nothing very profound or scientific in all this, you will say, perhaps! And yet, how much more inspiring

REPORT OF

DATE

Age	Average at this age			Recommendations
	lbs.	oz.	lbs.	
Weight	lbs.	oz.	lbs.	
Height	ft.	in.	ft.	
Chest Circum.		in.	in.	
Gen. Nutrition				
Skin				
Development				
Mentality				
Vision	L	$\frac{20}{\quad}$	R	$\frac{20}{\quad}$
Hearing				
Speech				
Teeth				
Tonsils				
Adenoid Tissue				
Glands				
Heart				
Lungs				
Abdomen				
Genitals				
Spine				
Limbs				

to detect and correct some easily and simply corrected defect, that but for us might have handicapped and crippled the chances of the child throughout a lifetime, than to be able to tell a mother, proudly but not altogether profitably, "Madam, your child has a most interesting and rare form of leukemia, of the splenomyelogenous type. Of course, there is nothing that we can do for him except to secure for him the best hospital care as long as he lasts; but it really is a most interesting and instructive case!"

The arresting question which always comes sooner or later in a discussion such as this, to give us pause, is, "But is it practical?" Or is this "all in your eye," cooked up for the occasion? Granting that it is desirable, is there time, in the twenty-four hours of the day, to accomplish all this? And just what sort of equipment is needed for it, if one were to desire to do it?

The first and foremost essential, I should say, is a good, handpicked, personally trained office assistant,—what such a person can do in the way of lifting routine work from one's shoulders is veritably enormous, as you know. If she be twins, with one half of her stenographically trained, and the other half leaning toward the nursing persuasion, so much the better. System will cut down the time and effort required enormously. I venture the statement that half an hour's systematic work will suffice to cover the ground that I have sketched out, very passably, if not indeed thoroughly; and one surely would not begrudge that much time to the consideration of a new surgical

case, or of a problem in internal medicine. It means team-work, of course, with dressing, undressing, weighing, measuring, record-writing and direction-typing done by mother and assistant; but the conception and perfecting of team work is the pleasure of the practise squad,—its execution, the joy of the varsity eight or eleven in action.

The work of checking up progress, outlining further measures, and initiating the steps in preventive medicine that we have hinted at, in passing, ought to be covered satisfactorily in revisits of not over fifteen minutes' length, for routine cases. This allows of dividing one's office working time very conveniently into quarter-hour periods, allotting two periods to a new case (more, if desirable), and one to the ordinary revisit. The use of a leaflet setting forth simply and briefly what protective vaccinations are, such for instance as those issued by some Departments of Health, may greatly simplify the obtaining of Schick test, typhoid inoculation, or diphtheria protection (in the form of mixed toxin-antitoxin treatment). A Pirquet or a luetin will take but a moment. An animal protein or pollen sensitization test may easily be compressed into a fifteen minute revisit. Even a Binet-Simon, if one's material is kept ready for instant exhibition, may be satisfactorily accomplished in a short time.

Another practically indispensable item is a second examining room or space, in order to eliminate that heartbreaking consumer of time, the wait for the undressing and the dressing of the child, while the phy-

sician sits idle and, as a rule, fuming with impatience to get on with the next case. A permanent wooden screen, such as is commonly used in dentists' offices to separate two dental chairs, has in my own case proved a most satisfactory way of obtaining two cubicles, equally well-lighted, and equipped in duplicate with examining table, chair for the mother, and instruments commonly used. Bulkier apparatus, which could not easily be available in duplicate, such as scales, measuring apparatus, etc., can be used in common for the patient in either room, by being placed in the open free space adjoining the cubicles. Some such time-saving arrangement as this is practically indispensable if one is to keep to such an office schedule.

If one can screen off somewhere a small space with a desk for his assistant, much of the routine questioning that goes to make up an adequate history may be satisfactorily covered by her, thus saving another considerable fraction of time. The history sheet then comes to him partially filled out, and requiring but the special leading questions that he desires to ask in order to follow out the lines that he wishes to explore, without wasting his time on work that can be done quite as well by a clerical worker as by a physician. A bright office assistant can be trusted to handle this part of the work must tactfully, if she be of the proper type to begin with, and is then carefully instructed. This is mentioned simply as another step in the attempt to multiply the efficiency of the physician by relieving him

of clerical work that can be done quite as well by someone else.

Another most desirable adjunct is a small room or partitioned-off space, in which one can talk to the mother undisturbed either by the child, or by what is going on in the workroom. Here one can read over to her, or have her read to him, the typewritten directions given her, commenting on and explaining them to her the while. If the child is an infant, it should be left outside with the nurse for these few moments. Experience has taught us that an attempt to treat the runabout child the same way, always means simply riding for a fall. So we have taken a tip from child psychology, and equipped the end of this confidence chamber farthest away from where the mother is to sit, with the most fascinating objects of interest that we could find,—which were, of course, those that had stood the acid test of inspiring continued interest in our own nursery. A few Montessori cylinders, buttoning frames, and metal insets, a set of tiny mountain furniture light enough to be lifted and moved about easily, and a particularly fascinating representative from the Humpty Dumpty Circus, never fail to arrest the attention of the child who enters the sanctum,—and gives us more than the necessary few minutes of conference with the mother that we need in order to drive home what we may want to impress upon her.

We have read much, of recent days, in the Journal of the American Medical Association especially, of the

requirements that should be demanded of the practitioners of various specialties,—eyes, ear-nose-throat, etc. The respective sections have considered the matter at some length. Perhaps this paper should not close without at least touching upon the question as it concerns the field that we have tried to map out. What can fairly be demanded in the way of preparation for this sort of work? The question seems an eminently practical one, in view of the fact that postgraduate teaching of the specialties is already being done on this side of the river; and must increase enormously, as soon as the plans for making the metropolitan district the teaching medical center of the world begin to be put into effect, unless we are to lag hopelessly behind the rest of the greater city.

I think that we can reasonably ask for an average familiarity with the newest and best thought in that part of the great body of internal medicine set apart under the heading Pediatrics. Then at least a bowing acquaintance with half a dozen of the special branches would seem essential,—enough, that is, to enable one to detect defects in his patients referable to the various systems, and to allocate them to the proper agencies for their correction. Such allied branches are dentistry, orthodontia, ophthalmology, ear-nose-and-throat, speech defects, mental retardation, (at least to the extent of administering and interpreting a Binet-Simon or a Terman), and, of course, orthopedics. All these, or most of them, could be given the graduate student in Pediatrics along with the fourth year medical stu-

dents, at least to the extent of the smattering of the specialties that we attempt to give the undergraduates in their last year. He must pick up for himself, by actual experience in his own locality, and by sedulous visiting and "mixing," the special virtues and the special shortcomings of the different public and private schools, as well as of those special schools designed to meet special conditions. He should be familiar with the general principles of the Kindergarten and of Doctor Montessori's newer educational methods, as well as with other educators and their work. He should know Boy Scout leaders and the special characters of the troops in his vicinity,—should be on terms of friendship with Y. M. C. A. workers and familiar with their equipment,—should have a working knowledge of the strong points and the limitations of social workers and social agencies. Much of the education of mothers along the lines that we are speaking of is being carried on today in the monthly periodical press; for instance, Emerson's work can be understood perhaps better by a reading of the August, September, and October numbers of the *Woman's Home Companion*, than by hunting through the files of the medical library; so that at least an idea of the help that he can get in this way may fairly be demanded of our pediatricist.

A discouraging prospect, do you say? Yes, indeed,—unless a vision of the opportunity for service is not so wonderfully stimulating as to cause us to forget the inadequacy of our preparation for the task, and think instead in terms of the help we may bring to a younger

generation, to do the things that we of this generation can never do, and be the men and women that we can never be, just because in our childhood this conception of preventive and corrective medicine was but an isolated dream. It is for us who are making children's welfare our lifework, to be among the foremost of those who are bringing this dream down out of the clouds, and making it a definite, concrete program of betterment, all over this broad land of ours, and in the countries overseas. Is not the prospect, rather, an encouraging one, stimulating us to be constant seekers after the newest, only where the newest is the best; making us hold ourselves ever ready to reject previously treasured tenets, and embrace newer and better concepts in this as in all other of the divisions of that great art that we profess and practise?

MEDICAL ASPECTS OF NUTRITION WORK¹

(Reprinted from *Hospital Social Service*, V, 1922, 317)

I have been surprised to learn that there are Nutrition Classes in New York which are attempting to function without the help of any doctors whatsoever. On expressing my very great surprise that a work of such technical difficulty should be attempted by any-

¹ Read before New York Nutrition Council, New York City, March 30, 1922.

one without medical co-operation, the fact was brought to my attention (though I was already only too sadly familiar with it) that the supply of physicians who have so far considered this work worthy of their interest and assistance, is so lamentably small, that it has been found practically impossible to staff all the Nutrition Classes that are functioning today—let alone those that we know will be in existence tomorrow. All of which simply reminded me of a point made by Emerson of Boston, the father of this movement as we know it today, when he talked before the Kings County Medical Society in Brooklyn a year ago. He told our medical confreres on that occasion, that a diagnosis of obscure endocrine deficiency or polycythemia never failed to intrigue the average medical man; while such a diagnosis as the practical but humdrum one of "too much picnic," "late hours at the movies," or "too much candy," left him cold and unmoved. Until we pediatricists can deliver a larger attendance at such meetings as this, it behooves us to "sing small" in criticism of social workers who go ahead in this most urgent work without the medical backing that we feel is such an essential part of the work.

As I look at this problem of malnutrition in children, that we are all agreed is best met by the instrumentality or agency that we call the Nutrition Class, I like to sum up the problem and its attack as follows:

- Malnutrition comes from either (a) a faulty health habit; or (b) a physical defect.

Remove (a) the faulty food habit; or (b) the physical defect.

Result: The child comes up to the weight which is normal or average for his age and height.

Sounds simple, doesn't it? And yet, as those of us who have worked on the problem know, it often seems about as easy to cure malnutrition as it is to cure cancer—no more and no less so.

It is of course the case that in very many instances it is only necessary to stop the child's candy, rearrange his sleeping time, or decrease his school-strain, if a faulty health habit is the cause; or to remove infected tonsils, correct eye-strain, or cleanse the Augean stable of a filthy mouth, if a physical defect is the causative factor; in order to achieve a lasting, striking cure. This can frequently be done without any elaborate Nutrition Class machinery at all. *I. e.*, without doctor, nurse, or Nutrition worker, many children who are badly underweight can be brought up to normal weight; and if we can do no better, then let us thank God for this much. But if in this way we fail in a great many cases; if the poor little waifs that most need our help fail to get it; then let us by all means so organize our forces as to reach these difficult cases, the puzzling, baffling cases, the ones that without us will absolutely fail of improvement. Let us leave for the moment the ninety and nine that anyone can help; and go out determinedly for the hundredth sheep that no other agency will get,

if we fail him. The family doctor and the children's specialist—the clinic and the children's ward—all have tried to help him, and have signally failed. Nothing will reach him but the best kind of a Nutrition Class, staffed with medical as well as social workers, both trained to the last degree in this highly specialized form of medical and social effort.

This is the kind of Nutrition Class that I want to outline. It is what I believe every one should strive to attain to, and what I feel quite sure none has ever yet succeeded in becoming. I have worked for three years toward this ideal, and sometimes feel as if I were farther from the goal now than I was when I began. And yet, I know that this is simply because I see so much more clearly now what that goal should be than I did when I began the work.

I shall not allow myself to even hint at the physical defects, or the forms of mental retardation, or the phases of tuberculosis, that so often prove to be the *raison d'être* of the malnutrition of the children that come to us. All these three classes of cases, while we can not expect them to be diagnosed by the social worker, should at least be suspected by the medical attendant. But there are many physical defects that it is not fair to expect even the pediatrician, unaided, to diagnose, much less cure. He must have at his command all the resources that are available to the attending pediatricist in the hospital of which his class is an integral part; and he must use them far more intensively than does the attending pediatricist, by so much as his

task of detecting incipient defect and disease is harder than that of diagnosing frank, gross disease in the wards. There should be available a routine eye examination, including refraction, for every one of his children. Ears, throat and nose should in every case be subjected to the purview of the skilled oto-laryngologist. A Binet-Simon or a Terman test should be available, to determine the mental age of each child, at least to the extent of knowing whether he should be referred to the neurological department or to the special class for retarded children. Spine, chest, and feet are deserving of the appraising eye of the orthopedist. Clinical laboratory and X-ray facilities are far more urgently needed here to detect the incipient defect than they are to confirm the diagnosis of the bed-patient in the ward. If he has an asthma of protein origin; if tubercle lurks somewhere in his body; if he is susceptible to the development of diphtheria; then appropriate skin tests must be applied that will make such a diagnosis possible, and steps taken to remedy the dangers discovered. Not only diphtheria toxin-antitoxin, but typhoid inoculation and smallpox vaccination must be administered. For of what use is it to salvage this little waif at such painstaking cost, and then lose him by such an easily preventable disease as smallpox, or diphtheria, or typhoid fever! If we are not to use these prophylactic measures here, then where in all good conscience *are* we to employ them?

All this is Utopian, you say? Not altogether so; though, as I candidly confessed above, our efforts at

the Brooklyn Hospital are so far from measuring up to this standard that we frankly admit that at times we can hardly even visualize our ideal, much less come near to attaining it. But here at least is an organization planned to meet the need outlined. If anyone else working at the same problem can get a hint from our experiences that will aid him in his work, the purpose of this paper will have been achieved.

Our foundation, basis, or point of departure is the orthodox Nutrition Class, meeting Saturday morning. It has its doctors, nutrition social service workers, and volunteer aides; and the familiar individual wall charts, with stars for health tasks accomplished, as determined by an individual interview in the case of each child. It differs from the usual in consisting of three divisions, namely: a Cardiac Class; a "Health" Class, which is sort of high school into which are graduated, with appropriate ceremonies, children who have gone "over the top"; and a Nutrition Class proper. In the latter, in order to spread out as far as possible the efforts of the doctors, (for, as was hinted above, and as you all know, doctors who are unscientific enough to enjoy *keeping* children well, instead of only *curing* them when they get sick, are not over numerous), the routine interviews are conducted by specially trained volunteer aides who have shown special aptitude for this work. They refer to the doctors any children whose gain has not been satisfactory; and any others who for any reason they think he ought to see. The doctors are left fairly free to handle

this phase of the work, as well as other things that come up in the course of the large number of cases handled, by the plan of having all new cases, with their time-consuming examinations, admitted on a different day entirely, when routine work is not attempted. Weekly health talks for the mothers assembled here, as well as for whatever children happen to be disengaged, aid greatly in health propaganda; and the monthly illustrated feature, which is occasionally a real "movie," has its own never-failing appeal.

Ordinary cases of malnutrition are thus well taken care of, and as a rule cured, if their attendance can be kept up. They are then graduated into the Health Class, where a food and health propaganda is carried on by trained workers from a neighboring domestic science training school. This obviates the necessity of discharging cases which have gained up to normal weight for age and height—so often merely to admit them later, when the stimulus of competition has been removed, with all the work to be done over again. This aids us in making good our slogan, "No child is ever to be discharged from the Brooklyn Hospital."

For the extraordinary case, however, the above-described machinery is not sufficient. It is for him that we are developing the liaison with other departments, as well as the special clinics that cluster about the Nutrition class as a nucleus. In the first place, it has long been the rule at the Brooklyn Hospital that both the clinical laboratory and X-ray facilities shall be quite as readily available for the out-patient as they

are for the in-patient, and of course these routine diagnostic aides often demonstrate perfectly simply the causative factor in a malnutrition case, that might otherwise never even be suspected, much less proved. A volunteer aide who did some work in psychology while in college, conducts Binet-Simon tests with sufficient accuracy to call attention to children with gross mental retardation, who can then be referred to our neurological brethren for closer study. Sometime we hope to inveigle the chief of this department, who likes psychoanalysis, into establishing a behavior clinic as an adjunct to our work. Once a week, the associate attending otolaryngologist visits us, and is gradually going over every one of the children and charting the condition of ears, noses and throats, as well as recommending for surgical correction any defects which demand this. Incidentally he is getting an idea of preventive work with children which cannot fail to be of value to him, as well as to his department within the hospital walls. A similar arrangement with one of the oculists who is especially interested in children's eyes, is pending, which when completed will mean a routine eye examination under atropine for every child whose parents are sufficiently interested in this routine protective measure to give the necessary consent. Our liaison with surgery and dermatology, while less intimate, is still quite close; as we share the benefits of the interclinic consultation slip system, which has for years been highly developed throughout our whole O. P. D. Our relations with the Orthopedic Department are of

course of the most intimate, as their problem is so largely one of combating malnutrition in their little patients; while in no small number of our cases our routine examination demonstrates an orthopedic condition as the causative factor.

The dental problem has had to be attacked somewhat differently, owing to the difficulty in securing dentists who can and will give of their time, which is with them so definitely a gift of a money equivalent. Our first step here was securing a general "mouth toilet," or dental "prophylactic treatment," in the case of every child whose need seemed at all crying—to be followed as soon as practicable by a routine procedure of this sort in the case of all the rest. During the cleansing treatment, the condition of all the teeth is charted graphically by one of the aides, who makes at the dictation of the dentist a notation of work recommended, in addition to filling out the dental chart. Our next step was taken quite recently. It consisted in a sort of dental "auto da fe," or Herodian slaughter of the innocents, in the form of an extraction party. As many cases as could conveniently be rounded up and attended to at one session, were asked to have permission slips signed by their parents. One of the professional anesthetists from the operating room came over to the dental room of the clinic; and the pile of wretched carious teeth that our dentist accumulated within a very short time and with a minimum of pain and apprehension, delighted the hearts of the Nutrition personnel, who

visualized increased weights and improved morales to the top of their bent.

One special room is devoted to vaccinations, Schicks, toxin-antitoxin and typhoid inoculations, Pirquet reactions, and (as soon as we can persuade an enthusiast to give the time, and the hospital to furnish the materials), protein detection and desensitization. We are especially proud of our priority in this preventive work.

Our liaison with the Obstetrical Department is necessarily indirect—by way of the Baby Health Class, to which newly made mothers are referred with their babies when they return for examination at the end of their six weeks' postpartum. Children from this class should of course graduate directly into a "Pre-School Age" Department; but as an insufficiency of social workers has so far prevented our undertaking this very latest arrival among the recognized forms of child welfare work, we occasionally feel that we must take over a special case from the Baby Health Class, insofar as directing the mother is concerned. Of course the psychological appeal of the Nutrition Class cannot be employed at so young an age.

One other phase of our work should be mentioned, before concluding this very hasty and inadequate sketch of the "medical aspects of nutrition work." This is our relationship to the general daily medical pediatric dispensary work, and to the pediatric ward. Our ranks are recruited for the most part from the ranks of the former; and it is rather significant of the success of

the Nutrition Class in reaching a group of cases otherwise not helped by treatment, that we are constantly begging off from new admissions because of inadequate medical help, rather than asking for more cases. Personally, I believe that every child discharged from the ward should be transferred as a routine thing to the Nutrition Class, and thence allocated to his proper subdivision of its activities, eventually landing in the Health Class, where he should be welcome until he reaches the age at which the hospital declares him ineligible for any further activities at the hands of the Pediatric Department. When such a state of affairs obtains, we shall have reached a stage in preventive pediatrics which can well be made to serve as a model for preventive medicine at all ages; and it will be to the new conception inaugurated by the Nutrition Class Idea, that such a consummation may be attributed.

THE NUTRITION CLASS: ITS VALUE TO THE PEDIATRIST¹

Probably no one movement has appeared in the last fifty years more pregnant with possibilities for the betterment of the children of this country than what I have called, for want of a better term, the "Nutrition Class Idea." This whole movement has occupied such

¹Read in the Section on Pediatrics, Southern Medical Association Fourteenth Annual Meeting, Louisville, Ky., Nov. 15-18, 1920.

an important part in the pediatric literature of yesterday and today, and is so familiar to every worker along child health lines, that I shall not attempt here to go into details with regard to the running of a nutrition class. In order, however, to bring the matter clearly before our minds, I shall briefly sketch the underlying principles on which the work is based.

The first of these principles is the recognition of the existence of a clinical entity, malnutrition, with well understood etiology and pathology, and definite signs and symptoms, some of them pathognomic of the condition. Chief among these is marked deficiency in the weight, in relation to the age and height. The second principle is the recognition of a twofold etiology. That is, malnutrition is due either to some physical defect, often to be discovered only after a complete, exhaustive physical examination; or to some faulty habit of life, to be discovered only by the aid of an equally exhaustive history-taking, and skilled home visiting by a trained social service nurse, known technically as a "nutrition worker." The third principle consists in the application of the old familiar class method to the therapy of this comparatively recent arrival among the known disease entities.

The recognition of the existence of this condition of malnutrition goes back to time out of mind, when pre-historic grandmothers called youngsters "puny," "peaked," "sickly," "failing," "pining," "declining," or any one of a dozen other descriptive adjectives. The earliest scientific recognition of the disease was by

Newman, of England, at the time of the Boer War, when three out of five of all the recruits for the British army (and remember, these were not drafted men, but volunteers, anxious to go, and so presumably in good health, and fairly young and active) were rejected because of the presence of physical defects, most of which were recognized as being of a sort that were preventable during childhood. An attempt was made to combat this by the wholesale institution of school lunches throughout England.

The history of the application of the class method to the treatment of malnutrition is equally interesting. Starting with the age-old custom of employing the class method for teaching anything, we find Minor, of Asheville, in 1890, applying the class method for instructing ambulant private cases of tuberculosis in the regimen essential to their treatment; thus for the first time, in this country at least, employing the class method in the treatment of disease. In 1905, Pratt, in Boston, as part of the work of the Emanuel Movement, had a class for instructing patients with tuberculosis. In 1908, Emerson, of Tufts College, Boston, the pioneer in the recognition and treatment of malnutrition in this country, picked out fifteen of the worst cases of malnutrition he could find from the Boston City Dispensary, and grouped them in what was to become the pioneer nutrition class. Following him, came Charles Hendee Smith, who became interested in the problem in 1914 and '15, while at the Vanderbilt Clinic, New York; and in 1916 commenced in the Outpatient De-

partment of Bellevue Hospital the first nutrition class to be started in that city.

After him came the deluge of the rest of us, until today every corner of the land has awakened to the presence of a vast amount of wasted child-power. Not the least potent of the agencies concerned in bringing all this about, have been the disclosures of similar conditions by our army surgeons and the examining physicians of our draft boards, which have driven home the surprising findings of wholesale preventable conditions, allowed to develop in childhood, among what we had fondly considered the flower of our young manhood.

The conduct of a nutrition class, as you know, is about as follows: One or more children's men examine completely all children applying for admission to the class, or referred to it by social workers, other physicians, or the pediatric ward of the hospital itself, which frequently turns over all its children on discharge to the class for the further attention necessary to complete their cure. The pediatricians should, if possible, be able to supplement their examinations where necessary by calling in other specialists, such as eye men, neurologists, orthopedists, dentists, etc., usually available on the staff of the hospital in connection with which the class is being maintained. All physical findings, together with those of a trained history taker, are noted on a very comprehensive blank form, which should cover every phase of the child's physical and mental life and health. A summary of all defects found, including the number of pounds below

what is normal for a child of such age and height, occupies a prominent position on this blank. A tag with actual weight, expected weight, and the "Rules of the game," is given each child. A large demonstration wall chart is then started for each child, on which a worker charts his weight each week. On this can be pasted variously colored and shaped seals, stars and labels, each a recognition of some point in the suggested health program that the child may have carried out during the week preceding, such as the taking of the daily nap, the morning or afternoon additional lunch, the washing of the hands before each meal, the twice-a-day brushing of teeth, etc., which are outlined as necessary by one of the doctors in the little health talk that is part of each weekly session. At these weekly revisits, each child is weighed and his weight charted, seals are awarded for satisfactory reports brought in, lists of foods taken are criticized, and comments or praise are handed out by doctors and volunteer aides, usually girls who are recruited from among those who gained some little experience in Red Cross work during the war. Much of the routine, non-medical, and clerical work can best be done by these aides, who thus "spread out" the available medical talent to its greatest possible extent. Especial praise is meted out to youngsters who have had the pluck to have any physical defects removed, as having tonsils and adenoids operated on, bad teeth treated or removed, etc.; for it is recognized that if malnutrition is due to some remediable defect, it will probably persist until this

defect is removed, all other measures meanwhile being unavailing to accomplish a cure. In our nutrition class at the Brooklyn Hospital Children's Clinic, we make a point of giving absolutely no medicine, so that we can properly evaluate the improvement made by those enrolled. The old familiar so-called "tonics," iron, hypophosphates, arsenic, and cod liver oil, are especially anathema to the man who has followed the results of this method. I shall not detain you to enumerate the striking changes brought about in special cases; and the general improvement accomplished in the ordinary case. The very recent literature is full of data that will well repay careful study, and will bring out these facts beyond all peradventure. Donnelly and Ruderman, in a recent paper before the Medical Society of the County of Kings, which will appear shortly in the *New York Medical Journal*, have recorded the results of our class in a preliminary report of its first six months; and similar experiences at the hands of others who have followed out the work may be found in almost every issue of the pediatric press. Suffice it to say, and I know that no man here who has added a nutrition class to his hospital service will dispute it, that no one who has once seen the working out of such an experiment, will ever be satisfied to carry on work among children without this wonderful and powerful addition to his armamentarium.

The idea of the general, searching physical examination, such a vital part of the nutrition class, is no new one. Life insurance companies, life extension and

health institutes, group medicine and diagnostic clinics, and the army and draft board examinations, each has contributed its quota toward making this eminently sensible procedure an eminently popular one among the laity, who have been quick to see its potentialities for good, and to want it for their children, even if they are lax about getting it for themselves. Perhaps the commonest and most widely applied example is the school examination, though its absolute powerlessness to accomplish the correction of the errors that it points out, is proverbial. This was well brought out by Dr. Lord, City School Physician of Asheville, at Charlotte last year.

The idea of the nutrition worker, by whose field work faulty home conditions are discovered and the instructions of the doctors with regard to the correction of the faults of daily living are reinforced and made effective, is simply an adaptation to the needs of this kind of work, of the conception of the social service nurse, first made familiar to the medical and hospital and social world by Cabot, of Boston.

Gain in weight is taken as the arbitrary criterion of the success of the nutrition class in the individual child; and yet it is not arbitrarily taken, either. For the underweight child who gains in weight always shows, hand in hand with his gain, such other signs of improvement, that the most captious critic cannot deny that his increased weight is a sign of his improved general condition. Emerson, in a talk that I had with him in Boston recently, went so far as to say that if

an underweight child fails to gain back to normal weight for his age and height in three or four months under the regimen of the nutrition class, this is in itself a definite indication either that he is not carrying out the rules of the game, or that the pediatrician has failed to discover and to remove the underlying cause of his condition. To the man who is actually doing the work, this is rather a hard saying, for frequently the gain in weight is by no means as easy to obtain as one might think. But I believe it is a pretty fair assumption that a failure to gain does imply some failure either in diagnosis or in carrying out treatment.

But our subject today is the value of the nutrition class to the pediatricist, and in this we must include its value to him in his private practice and in his public health work, as well as in his clinic and hospital relationship, which we have already considered. I must confess that for a year following my full conversion to the nutrition class idea, and my adoption of it as the pet department of my pediatric clinic at the Brooklyn Hospital, I lagged sadly behind in applying it in my private work. The class feature, such an outstanding part of the work, seemed utterly unfitted to the demands of private work in the office. And yet, here we were getting results in the clinic, with free patients, which were denied private patients whose parents were paying for our services. This seemed a paradoxical state of affairs, to say the least. Parts of the scheme were of course already embodied in private work, such as the complete examination supplemented by the ser.

VICES of the appropriate specialist; the routine history taking; the regular weighing and charting of weight where its graphic effect could be had; the elimination of candy and sweets completely, as well as the forbidding of all between-meals nibbling; the insistence upon the daily afternoon nap followed by the three o'clock luncheon; the minute questioning of parent and child to determine what particular points were in need of special stressing. But the uniformly good results that we had come to expect in the nutrition class were not being paralleled in the office; and I coveted just such results for my private patients.

Here again Emerson came to my rescue. He has gone so far as to adopt in his own private practice, at his own office, the machinery and tactics of the hospital nutrition class, gathering together there a group of children and mothers, for the group application of these modern methods of treating malnutrition. For this work he utilizes his trained clinic nutrition worker, who prepares each case for him in the office, just as she is accustomed to do in the Out Patient Department. In other words, he has realized the great basic truth that "mothers is mothers," whether they be rich, in moderate circumstances, or poor; and that what will work with them in one place will work in another. He has found that the theoretical objections to such a plan disappear in actual practice; that competition, friendly interest, and neighborliness are aroused; and that frequently the more fortunately circumstanced mother may gain most practical points and helpful suggestions from

the one less happily situated, when it comes to the all-important question of what each can do for her child.

Let me cite the type of case in which this nutrition class method has proved most helpful, in my experience. It is perhaps seen and recognized more frequently in referred or consultation work; though it seems to me it must be commonest in the practice of the family doctor, who until this new idea came to his aid was almost helpless in curing such a case. In my summer work in the mountainous resort country of western North Carolina, I see many, many children who are sent up to me with a diagnosis of "malaria," a diagnosis made perhaps by the family doctor, but certainly made by the family, for if the doctor does not make this diagnosis, the family or some kind neighbor does! The history of the child's having been bitten by a mosquito is always present. He is peaked, puny, has occasional attacks of fever, sometimes accompanied by chills. Who, in the presence of this damning chain of circumstantial evidence, shall have the hardihood to fail to make the diagnosis of malaria, or who shall look further for any other cause! These children have been veritably fed on calomel and quinin. In fact, a most intelligent mother who was doing her best to follow directions, said to me plaintively, "But, doctor, how *can* my boy get well, when you are not giving him any medicine?" The fact that a whole bureau-top full of bottles and pills, faithfully and continuously administered over a period of years, had so far failed to cure him, had never shaken her faith in her old diagnosis of malaria, or her

old friends, calomel, gray powder, castor oil, and quinin. When this new thought was presented to her, she was quick to see the point, especially after a day of light diet, packs, and rest in bed, without any drugs, had brought him to the end of his attack, something which had never occurred before without the exhibition of an appalling array of drugs. Failure to find the offending plasmodium is of course of no help in ruling out the possibility of malaria; because enough quinin to make its detection impossible, has almost always been given previously. Attempts to gain the faith and the co-operation of parents, to the extent of treating these cases without either castor oil, calomel, or quinin, and simply by the regimen of the nutrition class, are at first ludicrously ineffectual. They tell us, "Oh, you doctors from the mountains, or from the city, as the case may be, don't understand malaria. Why, my child is simply full of malaria!" Or, "But doctor, what must I do to make his bowels act freely?" In acquiring the necessary confidence and co-operation, mothers of children who have already been through this experience, and have seen these malnutrition cases clear up without a grain of anti-malarial medication or without a drop of cathartic, prove a tower of strength. And the class method, with its enthusiastic mothers and its healthy children, whose gains are visualized by their graphic charts, is almost an essential to the children's man in dealing with such youngsters.

Careful questioning, or frequently even the most

cursorily observation, for that matter, will usually demonstrate the fact that these children, though frequently from the very best families, have habits of diet and regimen that are simply appalling. Their food is almost invariably smothered in sugar ("he wouldn't eat anything, if I didn't cover it with sugar!") They are perpetually eating and drinking and chewing between meals,—candy, chewing-gum, sweet drinks, coca-colas, ice cream cones, being among the worst offenders. They spend their evenings at the "movies" or playing late in the streets, thus adding eye-strain and insufficient sleep to their vicious irregularities of diet.

In addition to castor oil, calomel and quinin in plenteous amounts, these children are certain to have been dosed up on so-called "tonics" of all sorts. Tonsils and adenoids may be large and menacing; or they may have been well or poorly removed. In spite of their good social standing, their teeth are probably a crying scandal, a trip to the dentist being beyond the daring of the bravest relative, who dreads the storm it would cause!

An example of the adaptability of the nutrition class idea to the needs of community welfare and public health work, and its power to vitalize the proverbially impotent school examination, by combining Federal, State, county, town, and private agencies, is being brought out in one of the smaller towns of western North Carolina. Last fall, the Parent-Teacher Asso-

ciation here started a campaign for a school examination of three hundred odd children in the Union Public School, something that had never before been attempted. This was planned according to the outline furnished by the North Carolina State Board of Health, and embodied on a card, worked out most carefully by Dr. George M. Cooper, Medical Director of School Examinations. It was carried out under the direction of the Association itself, which also furnished volunteer aides in sufficient numbers to conduct the weighing, measuring, etc. Each teacher did the clerical work for the children of her own class. A trained nurse and a Y. W. C. A. worker home on leave from the devastated area in France were pressed into service, for the search for pediculi. The one dentist of the community made a most careful, detailed examination of the teeth, charting his findings in each case. The doctors of the town, assisted by the full-time County Health Officer, covered the strictly technical, medical part of the examination. The State Board of Health, after receiving an estimate from the dentist, plans to retain him to do the work of the limited nature attempted by the State, namely, cleaning, extracting, and putting in simple fillings, accompanying his work by a running commentary of instruction on the care of the mouth. Such dental demonstration work, done elsewhere in the State, has never failed to arouse sufficient interest in both children and parents to induce them to pay for whatever more elaborate work is necessary to complete the job.

The State also plans to provide for the relief of the worst mouth breathers, by some modification of its policy of creating emergency tonsil and adenoid clinics. These are prepared for by the follow-up work of their specially trained social service worker, who visits the parents of these children in their homes, and prevails upon them to allow the work to be done. Other specially emergent cases are being placed with the appropriate specialists in the neighboring medical center of Asheville, through the activities of the full-time County Health Officer, who has access to all the records, and can assign such cases for treatment at reduced rates, using county funds placed at his disposal for those who can afford nothing. A scale has been installed as a part of the permanent equipment of the school, and the whole teaching force has become committed enthusiastically to the monthly weighing plan. All weights in each class are recorded on a class room weight record chart, published for such use by the Child Health Organization, so that he may read who runs. Next spring, at the close of the school year, these will be worked over with the aid of the County Health Officer, to find what children are below their expected weight for age and height, or have failed to make the proper monthly gain, as indicated by the tables at the bottom of the wall chart. These children will be urged to join the nutrition classes that are to be maintained during the vacation, and their gains in weight and general well-being will be compared at the end of the summer with those of their comrades who have not had

such special attention. In addition to the improvement to be derived by the children, this will give us an excellent opportunity of evaluating the results of the nutrition class regimen, by comparing this group with a similar group who have been left untreated.

As a prerequisite to the intensive work to be done in these nutrition classes, each of these children will have a very careful history taken by an experienced worker, later verified and amplified by a home visit. We hope eventually to have a permanent school nurse, supported by the local Red Cross Chapter, who can do this work during the summer, when her school duties leave her free. The child will then be examined from top to toe by a pediatricist. This examination will be supplemented, when indicated, by further special study at the hands of the oculist, the ear, nose and throat man, the orthopedist, the dentist, and the laboratory and X-ray man, who go to make up the staff of a diagnostic group for children that is being organized for work during ensuing summers. The child will then be assigned to the nutrition class nearest where he lives, whether that be in the school house itself, or at one of the three neighboring summer conference centers. This will throw him in contact with children from wealthier surroundings, which it is believed will be of distinct advantage to him and to them. We do not like to attempt to classify folks into different social strata in North Carolina, in medical work. Here all the forces of the nutrition class that we have been discussing,

medical, social, and personal, will be brought to bear upon him. Follow-up visits will be made by the nutrition worker to his home, to see that he takes his daily afternoon nap and afternoon luncheon, and his daily quart of milk. She can also find out whether he is obeying the statute forbidding any sweets whatsoever, and any bites between his four stated meal times; and whether his mother is preparing properly the proper food for him to take at those meal times. Unless all previous experience fails, we shall have a most instructive and stimulating report to make at the beginning of the next school year. It is hoped that a year-round nutrition class, as well as an outdoor class for delicate and backward children, may become an added part of the school equipment, which already boasts one very valuable nutritional feature, the hot school luncheon.

The time has gone by, never to return, when the field of pediatrics can be conceived of as being that small portion of the province of internal medicine fenced off by the establishment of an arbitrary twelve-year age limit. As long as it was that, with its patient looked at as a diminutive adult, and therapy based upon a fractional rule, there was much to be said for the view, still prevalent among many general practitioners and internists, that there is no such specialty as pediatrics, which they claim as simply a small part of their field. Unless the pediatricist can look upon the child from a standpoint far removed from this, one

which takes into account every factor, mental, educational, postural, emotional, nutritional, temperamental, which differentiates the child from the adult, then there is in truth no excuse for his existence. The true pediatricist must concern himself with the medical side, it is true; but that is perhaps the smallest part of his labors. He must be able to evaluate the harmful effects upon the little organism, of malocclusion, of faulty posture, of defective mentality, of under-nutrition, of wrong and unsympathetic attempts at discipline, of false educational efforts and false social values, of eye-strain and soul-strain, if you will; evaluate them after he has first diagnosed them, and then be able to bring to bear the factors that shall correct them, in order to bring about that highest consummation, "sana mens in corpore sano." Call it preventive medicine for children, if you will; but go farther and call it constructive medicine. This is what every pediatricist worthy of the name has dreamed of; but we all know how hopelessly huge such a conception of his duty must be, to the man who is trying to minister to any number of children. The nutrition class, as I conceive it, is the first definite effort, on any scale large enough to make it practical, to apply this ideal to the children of our land. It is the first workable and working effort to co-ordinate all the scattered forces, that we know in the abstract should be brought to bear upon each child, and yet that are so hard to exhibit, when it comes down to the treatment of the individual, concrete case, the child before you.

THE NUTRITION CLASS IDEA—A RETROSPECT AND A PROSPECT¹

Reprinted from *Archives of Pediatrics*, April, 1921.
E. B. Treat & Co., Publishers, 45 East 17th Street, New York

Our social service chief has given me this opportunity of coming before you again, to tell those of you who have not yet attended our Saturday morning Nutrition Class sessions, just what they are and what you are going to make it possible for us to make them this coming year.

You are all more or less familiar with the broad facts underlying the Nutrition Class idea—easily the most fascinating of all the present day efforts that combine medical and social work, and yet still in its infancy and relatively unfamiliar to those who need only to become cognizant of it, in order to become enthusiastic over its possibilities and its accomplishments. Roughly, the facts are these: One-third of all the children in the United States are at least 7%, and many of them 10% and even much more than this, below the weight that is normal for their age and height. This condition, with all that goes with it of lowered resistance, mental retardation, etc., cannot be remedied until the underlying defect that is contributing to it, such as diseased tonsils and adenoids, carious teeth, etc., has been discovered and remedied. For the detection of

¹Read before the Social Service Committee of the Brooklyn Hospital, May 25, 1920.

all of these defects that may exist in a given child, a complete, searching physical examination is necessary. It is comparatively easy to find out these defects, but very, very hard to bring to bear sufficient and suitable pressure to have them removed. Given their removal, and the institution of a proper health regimen and an adequate diet of suitable character, practically all of these children can be made to gain up to or beyond the weight normal for their age and height. Failing these prerequisites, so-called tonics, like iron, cod liver oil, "blood medicines," etc., are powerless to produce this gain, and are worse than useless, in that they upset digestion and destroy appetite, instead of doing what they are supposed to do. And, in conclusion, the class method, long ago found most successful in meeting the tuberculosis problem, is the most rational and satisfactory way in which to cope with this great menace of undernourishment.

In our own hospital, a staff consisting of a social service expert, 3 doctors, and from 1 to 5 volunteer aides has assembled in the dispensary building every Saturday morning, since the new department started out last fall, to work upon as many of the 80 children enrolled among its records as chanced to appear each day. These children were supposedly well, but were all far below par in weight, physical well-being, and stamina. Many or most of them had been treated by family doctors and clinic doctors, without much improvement, if not with steady loss. Each of these children has been carefully interrogated as to his past

history by a volunteer aide, and a careful record of the facts made. Each has been given as searching, minute a medical examination as we have been capable of performing. Each has had his physical condition fully charted on the blank you have before you, and the defects thus discovered grouped in the lower left-hand corner of the sheet, together with the doctor's recommendations for their improvement or cure. As many of these defects as we could persuade the children, or their parents, to have corrected, have been removed. Each child has been instructed, by every worker and in every way and from every angle possible, in the means of bettering his health. We have stressed the importance of proper food, cleanliness, care of the teeth, daily naps, frequent small meals rather than fewer heavy ones, fresh air, and everything else that we could conceive of. Appeal has been made to their fondness for rewards, their love of competition, their pride in themselves and in their records, with the most encouraging response. Every one has been visited at his home, at least once, by the nutrition worker. And every one of these youngsters, we truly believe, is a better embryo man or woman for the faithful, painstaking work that has been done for him. I need not take time telling those of you who have watched them there, how they enjoy their sessions. Every one of them is far ahead of what he would have been, had he not been a member of the Nutrition Class. And, most significant fact of all, not one of them would or could have been affected to an equal degree by any other agency at

work in this or any other city, for there is no other agency equipped to deal with these undernourished youngsters, with the combined force of medical examination and diagnosis, surgical treatment (where necessary), expert social diagnosis, and boy-scout-like personal and family appeal. And not one single solitary pill or drop of medicine has been given!

Dr. Donnelly, chief of the Nutrition Clinic, is presenting a preliminary report of the results of the work, before the Kings County Medical Society next month^{1,2}. I am contributing to this report a section that deals with the things that we did wrong last year, which are things that we are going to do right, this coming year. I don't want to admit that we did anything wrong, but we did do many things in other than the very best way. For instance, in spite of the warnings of Emerson, who began this work in Boston a number of years ago, we started in without the assistance and guidance of a trained nutrition worker. We never had even the full time of a social service worker. After we had worked Miss T. (who used to sadly admit that she was much more than 7 per cent. underweight for her age and height!) into a nervous collapse, and before our present worker came to us, we staggered merrily along for some weeks without any worker at all, and the number of 1

¹ Donnelly, W. H.: The Class Method of Treating Malnutrition in Children, N. Y. Med. Jour., Dec. 18, 1920. Vol. CXII, 25, p. 973.

² Ruderman, Louis M.: Six Months' Experience with a Nutrition Class, *idem*. p. 976.

visit cases increased in a way that we don't like to think of. Our 3 doctors were completely occupied (or should have been) with strictly medical work, so that the time spent by the children and their parents in the waiting hall was more pandemonium than health propaganda; a golden opportunity thrown away, because of inadequate staffing. We had no printed diet slips or instruction leaflets, and writing out directions by hand, and repeating them over and over again to impress them clearly, is a costly process in time and energy. We might have reached 300 children easily, instead of touching 80 with difficulty, had we been able to apply in practice the smoothly running system that we devised in theory. We might have had the whole weight of your committee back of us, heart and soul, had we realized that you would let us come to you and meet you and talk over with you our problems, and get your help in the lines in which we were unsuccessful.

This summer, during the school vacation period, we shall probably refer to the General Medical Pediatric Clinic any cardiac or nutrition youngsters who need special attention. But in the fall, we shall start out upon our second year of existence, with all the experience gained in the first, and with fresh interest and vigor. We are going to have one of our staff of workers come before you, just as often as you will let us; and are going to be, with your help and backing, just as great a factor in improving the health of the child life of the community as it is possible for us all, working together, to be. The most urgent of our needs we

want to put before you now, so that we may all be thinking of them this summer, and planning how they may be met, in the fall.

First of all, we need a full-time social service worker for the Nutrition Class, which includes in its scope the Cardiac Class. Our present worker can tell you how she is torn asunder by the claims upon her time and interest of the various departments of the work—feeding clinic, sick children, well babies from maternity, cardiac, and nutrition—and how inadequate one person must be to attempt to meet their manifold needs in the 24 hours of the day. Personally, I can conceive of this nutrition work without a doctor; I can not possibly visualize it as continuing, without a social service worker!

Our second need is for a committee from your number, to coöperate with the doctors in planning and providing for a definite, consistent program of health education, lectures and entertainments, for Saturday mornings of our entire season. These should comprise such prosaic affairs as health talks, both by our own nutrition doctors, and by such allies in the game as Dr. McKenna from the Orthopedic Department, someone from the ear, nose, and throat department, a dentist, etc. The social service worker can present a side of things that we miss; the hospital dietitian could approach things from yet another angle. The New York State Department of Health has promised us the use of their movie films, which could constitute a special monthly feature. Cho Cho, the Health Clown, and that

delightful Health Fairy, might be engaged for special events; even a Health Santa Claus might not be beyond the histrionic abilities of some of us, once in the year. With such a series of interesting and instructive things as these, keeping mothers and children waiting long enough for the necessary weighing and examining will be no problem at all; we shall have eliminated the great waste of time of the dispensary waiting room, substituting health instruction for boredom; and shall have at hand an incalculably valuable means of driving home the health and nutrition points that we want impressed and emphasized.

Third, we need an exhibit, in wax, of various articles of food that we can recommend, showing their relative values and amounts. We hesitated about starting the work without such an exhibit; but having seen dispensaries that had such exhibits and no Nutrition Classes, we decided to see, if it were not possible to have a Nutrition Class, even though we were to have at first no food exhibit! It will, however, make our work much easier and much more valuable to have one, and I am confident that it will come soon.

Our fourth need is for a group of volunteer aides, at least 6 in number, who will definitely take over certain phases of the work, so that the doctors may be left free to do the strictly medical work, and the social worker can function along her own special line. Two of these girls weigh and measure every child each time he visits the clinic, award the proper colored seals to which each child's gain in weight, faithfulness in attendance, or

observance of rules entitles him, and sends him back into the waiting hall by the opposite door, where he can enjoy the entertainment provided until he is summoned in turn before one of the doctors. The latter occupy rooms opening out from the side of the hall; one is for the examination of new boys, one for new girls, and one for revisits of both sexes; for it is only upon the initial visit that the child must be completely undressed for a physical examination. At these return visits, the doctor comments upon gains, ascertains the causes of failures to gain, and gives such suggestions as may be indicated. Each of these rooms is in charge of a volunteer aide, who, by keeping a constant stream of children ready for the doctor, and acting as his amanuensis, can easily double the greatest amount of work that he could possibly accomplish unaided. Another aide (either Miss Chapman or one of the girls that she will have trained along this line), will handle all records, so that no one shall be allowed to tamper with her wonderful filing system, that is getting to be one of the show features of the dispensary. We shall want one aide to take a Kodak snap of each child on admission. Last of all, there should be someone with an ability for generalship such that she can keep this whole complicated machinery running smoothly, so that we can minister to the greatest possible number of parents and children in the limited amount of time that we can devote to the work.

Starting out with these things, our class of last year will be to that of the coming season as moonlight is to

sunlight. Instead of stopping at 80 children, as we have been compelled to do, we shall be able to take in all the children that come to us. Instead of refusing even the specially needy cases that Mrs. Merriam has been begging us to take in, we shall urge her to send us every child she can find who needs what we have to offer. We shall have the admitting aide, who weighs and measures all cases in the General Pediatric Clinic, refer to us automatically every child whom her weighing and measuring show to be 7 per cent. or more underweight, so that we can cooperate with the doctor who is treating the illness, and keep on with the youngster after the immediate illness is over. We can do this, because the doctors will be doing only medical work; the social worker will have her hands free, and can seize the golden opportunity to have a word with this father or that mother who is present for the day; and each aide will be doing her own piece of work, for which she alone is responsible, and which she has learned to do better than any one else can do it. The parents will be linked up with the work of the class, and they and the children will be held by the interesting things presented them in the waiting hall by the educational committee. Were we to plan a building exclusively for this work, we could hardly make it better than the one we now occupy, with its ideal hall, lighted from the top, for lectures and demonstrations; the big room at one end, communicating with it by 2 doors, for weighing and measuring the children, taking them from and returning them to the hall in a steady stream; and

its series of examining rooms along the sides, into which the medical aides can sort the proper cases to be seen by the respective doctors.

As soon as we can accomplish it, there will be additional doctors in rooms now vacant, to handle the subclasses into which such a wide range of cases must be divided, in order to get the best results. There must be the doctors of the cardiac class, already in existence; one or more for the pretubercular class, which must soon be formed; and as many as are necessary for the health class, into which all nutrition cases proper graduate, with some little ceremony, as soon as they have had all their remediable defects corrected, and have come up to the normal expected weight for their age and height. All these, and their parents, can use in common the central hall, where a health educational campaign, appropriate for them all, will be going on. If we are to do our full duty by these children, all of them must be protected against smallpox by vaccination; against diphtheria, by the toxin-antitoxin administration that we are giving to our private cases (where the Schick test shows the individual to be susceptible); and against typhoid, by the anti-typhoid inoculations. It may soon seem advisable for the various allied departments each to furnish us a representative from its staff, so that the diagnosis of teeth, tonsils, lurking nervous disease, eyestrain, or orthopedic conditions, like spinal involvement or flat feet, may be made by experts, and defects detected that would otherwise go unnoticed, to militate against the child's climb to health. Already we have

under way such a relationship with the department of ear, nose and throat; and the others should soon follow suit.

Just one word more. I wonder whether, as I have been talking, there has occurred to any of you the conception that has gradually been taking shape in my mind—namely, of the Nutrition Class as a possible solvent of many of the puzzling hospital, medical and social problems of the day. Group diagnosis, as practiced at the Mayo Clinic in Rochester, Minnesota, and, less elaborately, all over the Middle West to-day,—we have it, in our adjoining rooms occupied by specialists in everything medical and surgical and social that affects children. A Diagnostic Clinic for the group study of children,—I know of nowhere that this has been attempted upon so comprehensive a scale. A Life Extension Institute,—we have one, in our searching history and comprehensive physical and mental examination, completed by the appropriate laboratory tests and X-ray examinations that we can and do call for. Closer organic relationship between hospital and dispensary,—we have that in the transfer of ward patients to the health or the nutrition class, instead of their discharge on leaving the hospital. Proper staffing of the dispensary, and the remuneration of the physicians working there,—we have both, in the multiplied opportunities for study, observation, and teaching afforded to both general practitioner and specialist in this detailed study of large numbers of children in comparative health as well as in the incipient stages of disease.

Health education for the people,—we have that, too, in our health talks and demonstrations to parents and children, 52 times in the year. The single record, or the central records office, about which we hear so much in discussions of the problems of hospital administration,—you have the working out of that, in the chart before you, on which every person who comes in contact with the child, either at the initial examination or at a later date, records the results or findings of his study. Better relations between medical and social forces,—can you conceive of a closer working relationship than what we have outlined above, as having been found indispensable for obtaining the best results? Greater efficiency at the least unit cost,—the Nutrition Clinic is run almost entirely by volunteer labor; it has no drug room, and is unalterably and incurably opposed to tonics, cough mixtures, and “placebos,” and it occupies the dispensary building at an hour when it would otherwise stand vacant, thus bringing a larger return from the investment locked up in the plant! The curbing of specialism run rampant,—we have even that, in the absolute intercommunication between rooms, where each doctor takes, instead of referring, his patient from one special department to another; the resulting diagnosis being the outgrowth of a complete, concerted study, rather than a series of consecutive, unrelated snapshots.

This, then, is the “Nutrition Class Idea.” No child must ever be able to say that he was told at the Brooklyn Hospital that he was “cured,” so that he need not

come back for further observation and treatment. Our doctors must never be "through with" their children. Our rule is to give every child, or his mother for him, an appointment for some future date, however remote, at which time a postal card or a visit will jog his memory, if he fails to appear. Detection or correction of defects, or protective inoculations, can then be attended to. Either the health class or the nutrition class must lay its snare for every child discharged from the wards of the hospital. Like the demon rum, we want to create in our victims an incurable habit,—“the Health Habit,”—which they simply cannot throw off. We want this habit to become so ingrained as part of their lives, that they can never slip into the diseased class whose ranks are recruited from the ignorant and the careless. And we of the Brooklyn Hospital shall have set in operation a force which can never be checked,—so vast a thing that one hardly dare attempt to compute its value to the individual, the city, and the nation. A citizenship 100 per cent. healthy,—can you conceive of it!

INDEX

A

Adenoids, *v.* Tonsils and
Americanitis, 33
Amino-acids, xi
Anemia and malnutrition, 109,
132
"Angel-wings" (prominent
angles of scapulæ), 9, 15-16,
101, 210
Appendicitis, 3, 4
Appetite, poor, 46 seq.; and
thumb-sucking, 75
Arches, 207
Astigmatism, 105
Atropine, 106
Atwater, 182
Automobile and fatigue, 41

B

Baby-walkers, 217
Baldwin-wood tables, 21, 22,
23, 141
Beef juice, 154
Bellevue Hospital Nutrition
Class, 233, 234
Between meals eating, 50, 55
Bibliography, 242 seq.
Binet, Dr. Alfred, 226
Binet-Simon tests, 110, 226
Blanton, Dr. Smiley, 224
Blessing, 67
Boas, 26
Boer War, 131
Bolting food, 151

Bomb calorimeter, 175
Bow-leg braces, 207, 216
Bow legs, 215-217
Boy Scout movement, dangers
of, 41
Breads, 153
Brooklyn Hospital Health
Class, 236
Brooklyn Hospital Nutrition
Class, 235, 251
Burk, 26
Butter, 152
Butter-fat, *v.* Cream

C

Calories, 65, 171 seq., 175
Candy, 50, 64; and toothache,
65
Cardiac disease and mal-
nutrition, 109
Caries, dental, and sweets, 6,
51; and malnutrition, 108
Carlyle, 121
Case, Lucy N., 69
Causes of malnutrition, 30
seq.
Cereals, 6, 63, 153
Certified milk, 51, 152, 205
Charts, for history and physi-
cal examination, 99, 247,
and Figs. 22 and 23
Chewing gum, 64
Chorea (St. Vitus Dance),
118

Cod liver oil, xi
 Coffee, 6
 "Colds," 7, 117
 Costal breathing, 213
 Cream, 51, 152
 Cure of malnutrition, 231 seq.

D

Danger zone, 27
 Dawdling, 47, 52
 Deafness, 104; test for, 110
 Dennison seals, 148
 Diabetes and malnutrition, 109
 Diaphragm, breathing, and posture, 212
 Diphtheria, 117, 239
 Di-saccharides, 62
 Dunfermline scale, 28, 29 seq.

E

Early walking, and bow legs, 217
 Ears, discharging, 117
 Economic status, 31 seq.
 Eggs, 154
 Emanuel movement, 134
 Emerson, Dr. Wm. R. P., viii, xv, 26, 42, 132, 242 seq.
 Emotional stress, 147, 154
 Endocrines and obesity, 203
 Estimating food values, 175
 Exercise, 36
 Experimental schools, 92
 Eye-glasses, 107
 Eye strain, 105, 111, 147

F

Family strain, 71, 127, 154
 Far-sightedness, 105

Fat-soluble "A," xi
 Fatigue, 8, 119 seq
 Fatigue posture, 9
 Fears, 74
 Finger-sucking, 75
 "Fixed high chest, singer's," 210 seq.
 Flat-foot, 16, 101, 217 seq.; correction of, mechanical, 219; correction of, by exercise, 220 seq.
 Food antipathies, 47, 69
 Forty-eight-hour food record, 177, 196
 "Free-to-gain," 97 seq., 111, 162
 Friction, 123, 127
 Fruit sugars, 61
 Fruits, 153

G

Glandular infection, 117
 Goddard, Dr. H. H., 226
 Great War, 133
 Gum-drops for Arctic explorers, 59, 62

H

Half time school, 90; simulated, 96
 Headache, 105
 "Health chore," 148
 Health intelligence, xvi
 Hearing, test for, 110
 Henry, Mary F., 69
 Heredity and obesity, 204
 History, 5, 136
 History Record Chart, 99, 247
 Holt, L. Emmett, xv, 26
 Homatropine, 106
 Homework, 39
 Hundred-calorie portions, 168, 176; table of, 182, 249

I

- Imitation and poor posture, 209
- Intake of food, insufficient, 170
- Intelligence Quotient ("I. Q."), 227

J

- Jealousy, 74

K

- Kaiser, Dr. A. D., 114 seq., 159 seq.
- Keeping in after school, 77
- Keep-well service, 237
- Knock-knee, 16, 101, 215

L

- Lordosis, lumbar, increased, 16
- Luetin test, 109

M

- McCollum, E. V., 69
- McKenzie, of Dunfermline, Scotland, 28
- Malnutrition, vii, xv, 4; causes of, 30 seq.; diagnosis of, 13 seq.; posture of, 13, 14, 101; signs and symptoms of, 13 seq.
- Masturbation, 35
- Mealtimes, 50, 55, 151
- Measles, 117
- Measured feeding, 168 seq.
- Measuring, makeshift, 20
- Measuring-rod, 19
- Meats, 153
- Medical examination, 98

- Mental retardation, 109, 223 seq
- Mentality and malnutrition, 223
- Milk, *v.* Certified milk
- Minor, Dr. Launcelot, 134
- Mono-saccharides, 62
- Montessori, Madame Maria, 68
- Mouth-breathing, 117, 118
- "Movies," 33, 147

N

- "Nagging" and poor posture, 207
- Nail-biting, 75
- Nap, 57, 87, 127, 151
- Near-sightedness, 105
- Neglected age, 9
- "Nervousness," 132
- Nutrition class, viii, 130 seq., 143 seq., 159
- "Nutrition Clinics, Inc.," 243

O

- Obese zone, 27
- One-hundred-calorie portions, *v.* Hundred-calorie portions
- "Only" child, 77
- Optimum load, 122
- Orange-juice, xi
- Orthodontia, 113
- Osler, xvii
- Over fatigue, 120
- "Over the top," 233
- Overweight, 27, 154
- Overweight child, 186 seq.

P

- Parent and long school day, 91
- "Percentage underweight," 21 seq. (footnote)

Periodical health examination, 97 seq.
 Peters, Lulu Hunt, 69
 Physical defects, 97 seq., 162
 Physical examination, complete, 99, 139
 Physical signs, 7
 Play, 36 seq., 77, 151; equipment, 77
 Posture, 12, 114, 207 seq.
 Private schools, educational laboratories, 88
 Protective inoculations, 239
 Ptosis, 16
 Punishments, 75

R

Record forms, 99, 247, and Figs. 22 and 23
 Reducing weight, 195 seq.
 Refusal to eat, 6
 Refraction (eye examination) for every child, 106
 Rest, 37, 127, 151, 156, 161
 Rheumatism, 117
 Rights, children's, 73
 Roberts, Lydia J., 29, 69, 244
 Rose, Mary Schwartz, 182
 Rules for parents, 50

S

Scales, *v.* Weighing
 Scarlet fever, 117, 239
 Schmidt, C. Rowena, 69
 School, a faulty health habit, 38; and exercise, 37
 School bus, 91
 School day, long, 81 seq., 147, 154
 School diseases, 81, 82
 School lunch, 156 seq.
 School strain, 154
 Shoulder-braces, 207
 Simmonds, Nina, 69

Sleep, 35, 127, 151, 161, 234
 "Slip over," 18, Fig 24, 141
 Small-pox, vaccination against, 239
 Smedley, 26
 Smith, Dr. Chas. Hendee, viii, 134, 233, 244
 Smith, Dr. Richard M., 69
 Sore throat, 117
 Spoiled child, 9, 78
 Stanford modification, 227
 Stefansson, 62
 Sugar, 6, 50, 58 seq., 63, 152
 Sunshine, 151
 Sweets, *v.* Sugar
 Syphilis and malnutrition, 109

T

Teacher, ix, 91, 94
 Teeth, and malnutrition, 108, 112, 149, 151; and sugar, 65
 Terman, 110, 227
 Thumb-sucking, 75
 Thurston, Flora M., 69
 Tonsils and adenoids, 44, 102 seq., 111, 114 seq., 147
 Toothaches, and candy, 65
Trained Nurse and Hospital Review, viii
 Tuberculin test of von Pirquet, 109
 Tuberculosis and malnutrition, 109
 Typhoid fever, protection against, 239

U

Underweight Reference Tables, 25 (footnote)

V

Vegetables, 153; leafy and rooty, 173

INDEX

319

Ventilation, faulty, 33, 34, 147;
good, 151
Vineland, N. J., 226, 230
Vitamines, xi, 172, 174

W

Wall chart, Fig. 25, 248
Wassermann test, 109
Water-soluble "B," xi
Wax, in ear, 105
Weighing and measuring, 8,
17 seq., 246
Weight curve, 145
Weight-for-age-and-height, 11,
24; tables of, 21, Figs. 7
and 8, 249

Weight-for-height, 26; tables
of, Fig. 10
"Winged scapulæ," v. "An-
gel wings"
Wood, Dr. Thos. D., 21
Wood's Tables, 21 and Figs.
7 and 8

Y

Yerkes Point Scale, 227
Youngest child, 79

Z

Zones of weight, 26

SIMPLIFYING MOTHERHOOD

being

A Handbook on the Care of the Baby
During the First Year of Life

By

FRANK HOWARD RICHARDSON, A.B., M.D.

Brooklyn-New York

Regional Consultant in Diseases of Children to the N. Y. State Dept. of Health; Chief of Nutrition Class, Brooklyn Hospital; Attending Pediatrician to Brooklyn Orphan Asylum; Vice Dean Southern Pediatric Seminar; Director of Children's (Summer) Clinic, Black Mountain, N. C.; Lecturer to Teachers' College, School of Practical Arts (Nursing); Collab. Editor Archives of Pediatrics; Ped. Ed. Med. Rev. of Rev. and Southern Medicine and Surgery; ex-Pres. Brooklyn Pediatric Society.

Containing

A Chapter on Breast Feeding

BY ISAAC A. ABT, M.D.

Professor of Diseases of Children, Northwestern University Medical School, Chicago, Ill.

This book, written and compiled by a Doctor who has made the nutrition of babies a life study, is in many ways a companion to Dr. Kerley's *Short Talks with Young Mothers*. Primarily it is a study of the feeding and care of infants with particular stress laid on the practical possibilities of breast-feeding. Chapters on "Preparation Before the Baby's Birth" and "Diet for the Nursing Mother" are included. The author, who is at present running a Clinic for babies at Black Mountain, North Carolina, gives full explanations to justify his belief that every mother can nurse her baby.

NEW YORK G. P. PUTNAM'S SONS LONDON

SEX AND THE YOUNG

By

MARIE CARMICHAEL STOPES

A FINE and courageous book based on a sympathetic as well as scientific understanding of the subject. Here is a volume which meets and answers in simple, human and kindly fashion the questions with which parents and teachers all over the world are faced daily. For it is necessary to teach children gradually the facts of life and to give them the *truth* as they need it. The sooner the present generation overcomes the unfortunate tendency of the past to hide all important truths as though they were something vile and shameful, the better chance we shall be giving the children of the future.