SCHAFFER (N.M.)

[COMPLIMENTS OF THE AUTHOR.]

The Relation of Orthopædic Surgery to General Surgery.

BY

NEWTON M. SHAFFER, M.D.,

ATTENDING SURGEON IN CHARGE OF THE NEW YORK ORTHOPÆDIC DISPENSARY AND HOSPITAL.

Reprinted from the Boston Medical and Surgical Journal of February 26, 1891.

BOSTON:
DAMRELL & UPHAM, PUBLISHERS,
283 Washington Street.
1891.

S. J. PARKHILL & CO., PRINTERS
BOSTON

THE RELATION OF ORTHOPÆDIC SURGERY TO GENERAL SURGERY.[1]

BY NEWTON M. SHAFFER, M.D.,
Attending Surgeon in charge of the New York Orthopædic Dispensary and Hospital.

GENTLEMEN: — It has been for several years the special function of the New York Orthopædic Dispensary and Hospital to aid in the development of purely orthopædic methods. Its work has been to develop and improve the much neglected branch of mechanico-therapy. It has devoted much time and effort to the early recognition of the deforming diseases, especially of childhood, and it has aided in devising methods not only for the prevention of deformity, but also for relieving or curing it after it has occurred. While the general surgeon has been occupied in bringing operative surgery to its present very high standard of efficiency, your Institution has been working in a field of almost equal importance — though far less brilliant and far less attractive to the rank and file of the medical profession.

The operative side of general surgery has always been well taught in all the medical colleges and universities. On the other hand, there has been in the same institutions an almost general neglect of orthopædic surgery — a department of surgery almost as important as operative surgery itself, and one which is of great value to the human race. Your Institution has been content to work in those lines which would aid in removing the unjust opprobrium that attaches

[1] An address delivered before the Trustees of the New York Orthopædic Dispensary and Hospital — upon the occasion of its Twenty-Third Annual Meeting.

to mechanico-therapy, and in demonstrating the usefulness and the wide range of properly applied mechanical principles of treatment.

In short, your Institution has been steadily working upon conservative lines — neither ignoring the great strides in general surgery, nor forgetting its own mission. Its efforts have been rewarded in more ways than one. The steady increase in the number of patients which have sought your services was mentioned in the last Annual Report; and while orthopædic institutions and orthopædic departments of institutions and orthopædic clinics at the colleges have multiplied in New York City and elsewhere since this Institution was organized in 1866, it still remains a fact that a large percentage of the patients which apply to your Institution for treatment have previously had no orthopædic treatment at all; and while there are now quite a number of places to which the poor cripple may apply, so broad and so generous is the philanthropy of New York, the important orthopædic institutions of our city are overcrowded, and some of them, like our own, are asking for more room and increased facilities.

The subject of mechanico-therapy is so important and its future usefulness is now so well assured that we, as an Institution, may well feel proud that our efforts have been so steadfastly directed toward its development. The general surgeon, whose ample and easily obtained training fits him to perform the cutting operations for the relief of deformity, finds himself fully occupied in keeping abreast with the current surgical thought and literature of the day. The dextrous operator finds his time fully taken up in his peculiar and special work. But there is another side to surgery. The joint, for example, that is excised in many instances may be saved; the limb condemned to am-

putation on account of its deformity may in many cases, be straightened. Properly applied mechanico-therapy will save many of the deformities that fall into the hands of the operative surgeon. Indeed, many of the deformities that were formerly almost habitually operated upon can be relieved or cured by orthopædic measures without operation. But, if a patient with deformity reaches a point where orthopædic measures are contraindicated, or useless — or where a surgical operation, with ordinary surgical dressings only, are necessary to remove the deformity, he should at once be placed under the care of the general surgeon. Orthopædic surgeons, in short, ought to limit their work to their own department — in which there is enough to do and enough to learn, without interfering in the slightest degree with the already overcrowded ranks of the general surgeon.

Orthopædic surgeons have until recently been placed at a great disadvantage. The early followers of true orthopædic surgery — and some of them are alive to-day — were necessarily self-educated in orthopædic methods and work. They had no school or college; no hospital or dispensary to which they could go to receive instruction in orthopædic surgery. Equipped as regularly educated men, amply prepared to amputate a limb or excise a joint, etc., they were not taught even the simplest rudiments of mechanico-therapy. They might have been told that "Smith's club-foot shoe is the best," or that "Jones's knock-knee instrument is superior to Brown's"; but of the mechanical principles involved they were taught little or nothing. In addition to this, they had to meet and overcome the still existing opprobrium that attaches to the subject of mechanical treatment. They had also to meet the criticism that "Dr. X. could perhaps apply a club-foot shoe pretty well, but he could not amputate a limb as

well as Dr. Y."— as if any means that relieves human suffering is beneath the dignity of the most highly educated and accomplished surgeon that ever lived.

This is becoming changed. There are several places where the seeker after orthopædic knowledge may find opportunities for study; and while it is difficult to remove the old prejudice that exists, especially outside of New York City, it will not be long before orthopædic surgery, *per se*, will occupy its legitimate place in the estimation of the entire medical profession. In the meantime, orthopædic surgery needs men who will work and wait, — men who will patiently investigate the many unsolved questions that confront it on all sides; men who will devote themselves to a true specialism, and who will steadfastly refuse to compete with the general surgeon in the field of operative surgery.

We have only to look about us to see how fully the field of general surgery is occupied. No one in the civilized world, requiring the services of the general surgeon, need go unrelieved. The general hospitals of all countries are numerous and well-equipped, and this is especially true of our own great city. On the other hand, what are the special provisions made for the treatment of the deformed? There are comparatively few surgeons in the whole world whose early education and training fit them to intelligently apply apparatus to the conditions of deformity. In some of the large cities, both here and abroad, there are orthopædic dispensaries and hospitals, but the surgeons connected with them and controlling them are too frequently men with strong operative instincts and training — surgeons who are accomplished in all that pertains to diagnosis, the conventional surgical dressings and the use of the knife, but who are necessarily lacking in the special training required to successfully

apply the fundamental principles of mechanico-therapy to an average case of progressive deformity. They are, by nature and education, operative surgeons who duly recognize the value of mechanico-therapy, but they are, I think, too often willing to relegate the mechanical detail of treatment, both before and after operation, to the uneducated instrument maker, whose interest in the patient is merely a commercial one. It is largely so in England, France and Germany, — it is only less so in America. At the same time, there are quite a number who are, strictly speaking, orthopædic surgeons, whose education is based upon an early and prolonged training in orthopædic methods, and it is to these men that we must look, I think, for the advancement of true orthopædic surgery.

It must be apparent that it is only by special effort and prolonged study and work that any department of medicine can reach its maximum of benefit to the human race. The history of medicine proves that many of its greatest advances have been made by broadly educated men who have devoted themselves to special branches of work. And so it is in orthopædy. It is not the surgeon who amputates a thigh, reduces a fracture or a dislocation, and applies a hip splint the same day, that is likely to advance orthopædic science. It is more likely to be the surgeon who, with the wide and almost unexplored field of mechanico-therapy before him, devotes his life to demonstrating its great value in the various conditions of deformity and deforming diseases.

The function of the orthopædic surgeon should therefore be to fill a place not occupied by the general surgeon — to do a work that the general surgeon is either unwilling or unfitted to undertake, and to aid in developing an important department of surgery which has been too long neglected or ignored. Those

deformities which general surgery is competent to relieve, without the intervention or aid of the orthopædist, should be placed at once under the care of the general surgeon; while, on the other hand, chronic cases requiring special mechanical treatment, either in the prevention or cure of deformity, should be placed under the care of the orthopædic surgeon.

It is my experience that a longer training is necessary to fit one to be an orthopædic surgeon than to fit one to be an operative surgeon. The brilliancy of operative work attracts many of the best men in the profession, while the hard and rugged work of mechanicotherapy seems to repel many who are adapted to orthopædics; and yet the work of the orthopædist may be called an exact science. He is dealing with mathematical and mechanical problems all the time. He has a definite object in view, and his therapy is controlled by his own hands. He is limited in the application of his principles of treatment only by the vulnerability of the human tissues; and while he may be in doubt as to the best "method" to be employed he is never in doubt as to the ultimate principles of treatment.

The field of orthopædic surgery is therefore a very wide one — so wide and so comprehensive that one engaged in its practice need not encroach on the field of the general surgeon. Still, the orthopædic surgeon should be an educated operative surgeon — and he should be prepared to operate upon any patient who *requires special mechanical treatment after operation.* But the operative treatment should be secondary to the mechanical, and the element of conservatism should necessarily enter largely into the work. The patient mechanical work — may be of years — necessary to save a limb or joint from deformity, may be less brilliant than the operative means that removes them, but the real merit lies in that method which saves the limb

and restores the affected individual to society with a useful member.

In an essay read before the International Medical Congress held in Berlin in August last the writer raised the question, "What is Orthopædic Surgery?"[2] and he ventured to define it as follows: "Orthopædic surgery is that department of surgery which includes the prevention, the mechanical treatment and the operative treatment of chronic or progressive deformities, for the proper treatment of which special forms of apparatus or special mechanical dressings are necessary."

The conclusion formulated in this definition is based upon nearly twenty-two years of work in your Institution — seventeen years spent in the orthopædic ward of St. Luke's Hospital, combined with an early training of five years in the New York Hospital for the Relief of the Ruptured and Crippled. It places your Institution on record as being the first to formulate a definite plan of work, which separates orthopædic from general surgery, and which aims to cover a definite field not included in that of the general hospitals and dispensaries.