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The Present Needs and Future
Demands of Orthopædic
Surgery.

*A Portion of an Address delivered before
the Trustees of the New York Orthopædic
Dispensary and Hospital upon the
Occasion of their Twenty-ninth
Annual Meeting, held
November 16, 1896.*

BY

NEWTON M. SHAFFER, M. D.

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THE PRESENT NEEDS AND FUTURE DEMANDS OF ORTHOPÆDIC SURGERY.

A PORTION OF AN ADDRESS DELIVERED BEFORE THE TRUSTEES OF
THE NEW YORK ORTHOPÆDIC DISPENSARY AND HOSPITAL
UPON THE OCCASION OF THEIR TWENTY-NINTH ANNUAL MEETING,
Held November 16, 1896.

BY NEWTON M. SHAFFER, M. D.

GENTLEMEN: As I rise to address you this evening the new hospital building approaches completion. Recently remodeled and much enlarged, it is fully equipped in every important respect for modern orthopædic work.

A year ago we were deeply in debt. The ordinary dwelling house adjoining your property on the east, unfitted for hospital use, had been purchased. We were without means to erect a suitable hospital structure in its place. To-day, through the kindness of friends, a new fireproof hospital building, as yet not wholly paid for, stands in the place of the property which we purchased. Aided by this additional building, we find that our capacity for hospital patients has been increased one third; we have made various changes in the Sloane pavilion and in the older hospital structure;

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an elevator has been introduced; we have a complete Röntgen-ray apparatus, a modern operating room has been added to our equipment, and the three original buildings comprising our now consolidated hospital represent all that the most earnest critic could demand in orthopædic work. It matters but little where the examination commences, whether in the shop, where the most intricate and delicate apparatus for the treatment of deformity can be made; or in the domestic department, where all the modern improvements have been introduced, the progress upward from story to story develops a careful economy of space, with a liberal allotment of room for both the dispensary and hospital.

The dispensary is especially adapted to the needs of the outdoor patients, who crowd the reception and treatment rooms daily. It is on this floor that the X-ray room has been placed, and it is here also that the interesting work of the neurological department has been located. Nearly the whole first floor of the three buildings comprising our remodeled hospital is given up to dispensary work.

On the second floor are located the rooms for the administrative work of the hospital, the children's dining room, and the operating room—the two latter being rooms that would attract attention in any hospital.

Six wards, accommodating seventy-five patients, occupy the third and fourth floors, and everything has been done to make these wards bright, attractive, and aseptic, while the problem of ventilation has received its full share of attention.

The fifth story contains the children's play room, the roof garden, and rooms for nurses, while, at a remote point and unconnected with the rest of the house, and

with an entrance from an open roof only, there is an isolated ward with suitable sanitary adjuncts, for suspected acute infectious and contagious diseases.

This, in brief, is a description of your completed building. The more one studies the arrangement of the various parts of the building and notices how completely the compact whole represents the needs of a modern and progressive orthopædic hospital, the more the friends of your work must be satisfied.

Modern orthopædic work demands all that you have given your medical staff. The theories of a few years ago regarding the causation of tuberculosis have become demonstrated facts. The light which modern bacteriological investigation has thrown on the various morbid processes which enter into the question of the production of certain chronic deformities is no less important to the orthopædic than to the general surgeon. In treating these deformities from the operative standpoint, the orthopædic surgeon needs the same training as the general surgeon, and the same aseptic and general surgical care should be exercised, for example, in opening a simple abscess connected with a diseased joint as in operating for an acute appendicitis. But while the general surgeon covers a wide operative field, the orthopædic surgeon finds, in his work, a more limited operative field. The latter, however, should be no less a surgeon because he operates in those cases only which require special orthopædic care after operation. To extend the operative field of orthopædy beyond this point is to break down the only barrier between it and general surgery, and the effect is to belittle true orthopædic surgery and to emphasize the impression, only too pronounced that the tendency of the orthopædic surgeons

of to-day is to make orthopædy a stepping stone to general surgery. The effect of this on legitimate orthopædic surgery can be imagined. If it should so happen that the present views of some of those who are known as orthopædic surgeons should prevail, there will be no orthopædic surgery, except as it may exist as an adjunct to general surgical practice, and the real foundation of orthopædy—that is, the study of mechanico-therapy—will be relegated to the instrument makers from whom legitimate orthopædic surgery rescued it not many years ago.

Your institution stands as the exponent of legitimate orthopædic practice. Until recently it has been hampered, by the lack of proper facilities, in the full performance of its work. During this time it has striven patiently and persistently to develop the much-neglected side of deformity surgery—namely, the unattractive mechanical side. But unattractive as is this part of the work to the average orthopædic or general surgeon, it is the important side, and it is the side of the work upon which the success of the treatment of a case of deformity depends. It seems almost useless for me to say that the same attention will be given to this part of the work in your institution in the future as long as I have the honor of being its surgeon-in-chief, and I dare to hope that my successor, whoever he may be, will hold the same views. The addition of an operating room simply enables us to treat our patients from both an operative and mechanical standpoint. It does not mean that the operative side will be developed at the expense of the mechanical work. It does not mean that there is any danger of your hospital being known as a general hospital, where all, or even many, of the opera-

tions of surgery are to be performed. If it becomes necessary for us to operate to overcome a deformity, and the patient requires special orthopædic care after operation, we propose to operate, but all other patients requiring surgical care will be referred to some general hospital, where they belong.

The future of orthopædic surgery depends upon the deliberate study and development of the mechanical aspect of the work. There will always be operative surgeons who can perform the cutting operations which are sometimes necessary to relieve chronic deformity. On the other hand, there is to-day a scarcity of surgeons who understand, or who have been taught to apply, the principles underlying the mechanical correction of deformity. The student of mechanico-therapy needs encouragement, and the medical profession should understand more fully that it is only by a conscientious and prolonged study of both the operative and mechanical work that a fully equipped orthopædic surgeon can be produced. It is taken for granted even in our best medical colleges that a student is a natural mechanic—born to devise and apply apparatus in the treatment of chronic deformity—and yet I venture to say that there is no more delicate or difficult problem in the whole field of surgery.

Who will be the first one to endow a chair of mechanico-therapy, associated with a clinical professorship of orthopædic surgery, in one of our medical schools?

To apply an apparatus, already made, to a patient, to give a description of Smith's hip splint, or Jones's spinal brace, or Robinson's clubfoot shoe, or to apply a plaster-of-Paris splint in presence of a class of stu-

dents, is like giving a simple verbal description of the quadriceps extensor femoris muscle to one who has never dissected a human body. Actual training in mechanical work is as necessary to a successful student of orthopædy as is dissection to an anatomist, or as clinical study and laboratory work are to the successful development of the well-trained medical man. As the old style of giving didactic lectures in medical schools has given way to more practical and scientific methods of instruction, so, in the future, the present methods of teaching orthopædic surgery will be re-enforced by practical work in the mechanical room. The perfunctory application of an apparatus before a class will give way to a description of the fundamental principles underlying the mechanical, anatomical, and surgical problems involved. The student will then be obliged to apply these principles under the instruction of the professor—and the student will thus gain a real knowledge of the subject.

When one sees, in the various instrument makers' shops, the many crude and incorrectly constructed instruments for the treatment of chronic deformity which are, literally, like sugar or salt, in the market, one can realize the embarrassment of the average medical man in his effort to cope with the treatment of a patient with a chronic or progressive deformity. His guide is the profusely illustrated catalogue of some enterprising instrument maker. His knowledge—for there are no text-books on the mechanico-therapy of orthopædic surgery—is limited and his failures are many. The existing works on orthopædic surgery do not satisfactorily cover this field. Whose is the fault? It lies wholly with those who teach, and it will be thus until the sub-

ject of mechanico-therapy, as applied to the problems involved in orthopædic surgery, is made an obligatory course in the medical colleges.

So far as is possible this work has been done in your institution in the annual course of lectures which have been given under your auspices for the past twenty years. It has been further amplified by throwing open the doors of the institution to those who wish to study the mechanical principles involved in the treatment of deformity, and many have availed themselves of this privilege. There are at present three or four surgeons from various distant cities who are following the work of the dispensary and hospital. Our work in this direction might easily be increased if it were more generally known that we always welcome those who wish to study our work and methods.

From causes entirely beyond our control the Morgan operating room was not completed until early in the summer. We had used the room only once when orders came to remove all the hospital inmates to the country, in anticipation of the extensive changes in the building—which have since been made. On this account, and also on account of the flying mortar dust arising from the demolition of the old building, it was deemed best to keep the operating room closed all summer. The furniture, etc., which was removed, has been replaced and the room is now in order and operative work has already begun.

It is due to the generosity of one of our trustees that we have a complete Röntgen-ray apparatus as a part of our regular dispensary and hospital work. Its use opens a large field for scientific work and study. It will serve to throw much light on that which has hitherto been ob-

scure and difficult. In all the diseases and deformities of the major articulations and long bones, and also in other respects, its assistance in forming a picture of the conditions will be invaluable—and the entire medical staff desire to thank the gentleman who made this valuable present to the institution. It is with your approval that I announce to the medical profession that at certain hours and under certain conditions the X-ray apparatus will be placed at their disposal. [The remainder of the address was devoted to a statistical statement of the work of the institution during the past year.]

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A WEEKLY REVIEW OF MEDICINE.

EDITED BY

FRANK P. FOSTER, M.D.

THE PHYSICIAN who would keep abreast with the advances in medical science must read a *live* weekly medical journal, in which scientific facts are presented in a clear manner; one for which the articles are written by men of learning, and by those who are good and accurate observers; a journal that is stripped of every feature irrelevant to medical science, and gives evidence of being carefully and conscientiously edited; one that bears upon every page the stamp of desire to elevate the standard of the profession of medicine. Such a journal fulfills its mission—that of educator—to the highest degree, for not only does it inform its readers of all that is new in theory and practice, but, by means of its correct editing, instructs them in the very important yet much-neglected art of expressing their thoughts and ideas in a clear and correct manner. Too much stress can not be laid upon this feature, so utterly ignored by the “average” medical periodical.

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