

FOSTER (C. C.)

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CARIES OF THE ANKLE,
TREATED CONSERVATIVELY.

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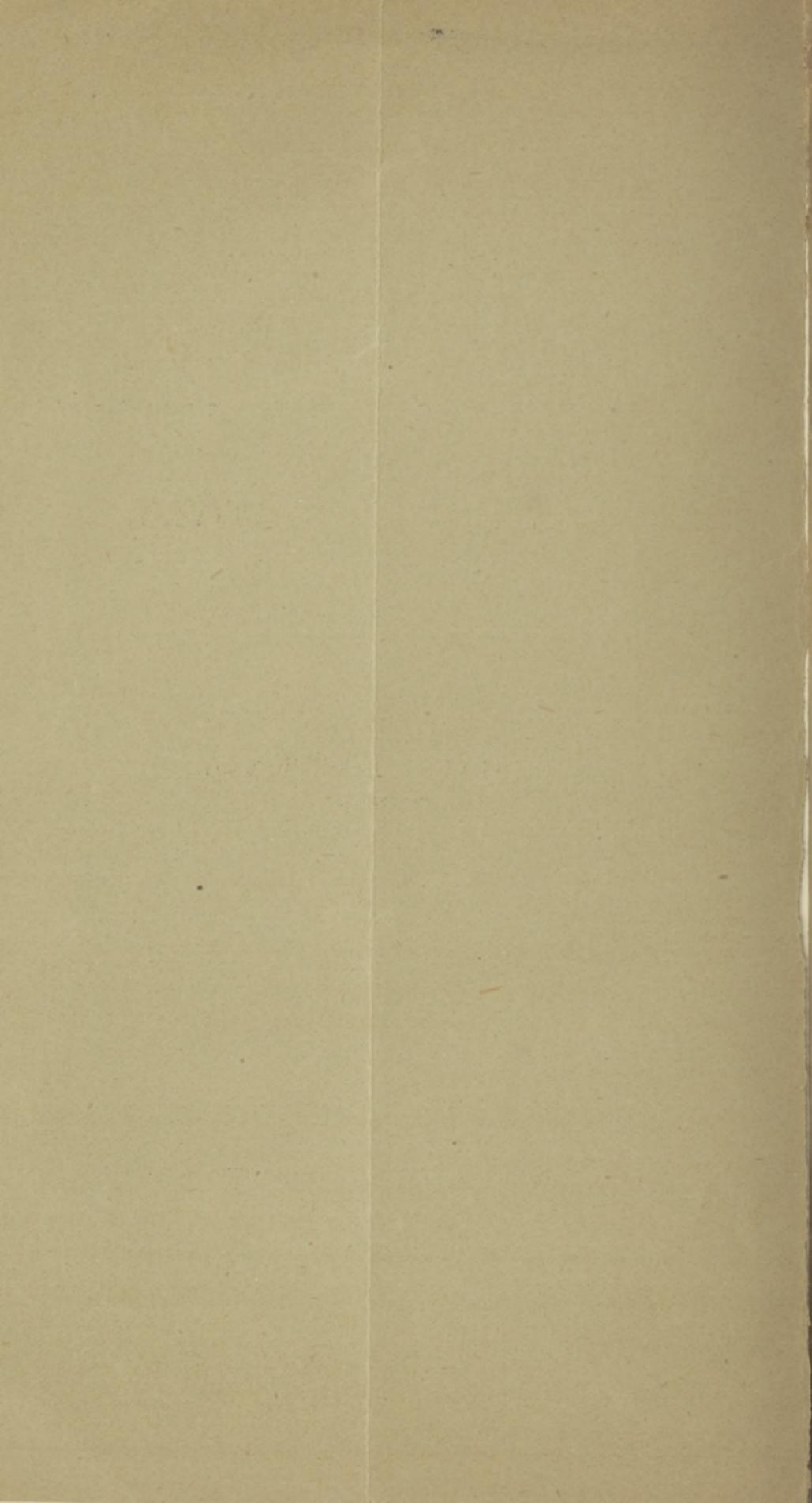
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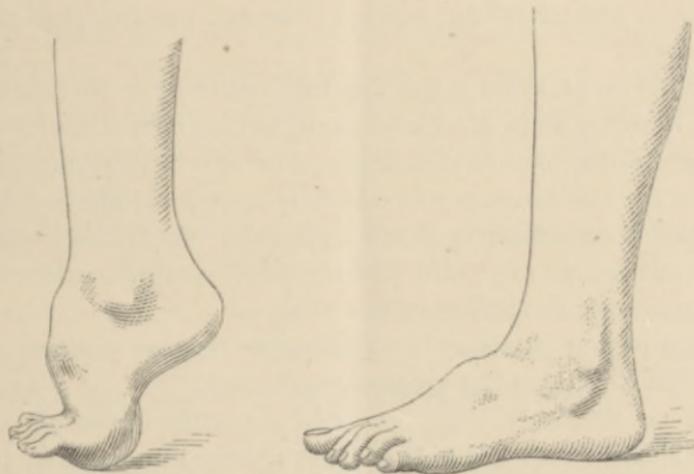
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A CASE OF CARIES OF THE ANKLE, TREATED CONSERVATIVELY.

BY CHARLES C. FOSTER, M.D.,
CAMBRIDGE, MASS.

So much has been said and written of late concerning the operative treatment of caries of joints, that I fear the value of conservative treatment in such cases is not fully appreciated; therefore I wish to present the following case as an example. It was treated at the Cambridge Hospital over a year ago.



At the time of beginning treatment the patient, Mary D., was twelve years old. For seven or eight years she had had caries of the tarsus. Of late the disease varied in activity from time to time. A sinus would open, discharge for some months, then close. The whole tarsus was completely riddled. I counted seven distinct scars, and was told that many of them had discharged more than once.

If I had attempted anything like a thorough removal of diseased bone by resection, which thoroughness seems to be now considered necessary to success, I think little or nothing would have been left between the os calcis and the phalanges. The best result then to be hoped for would have been a flail-joint; which I do not consider good, though some others appear to.

When the disease was quiescent she could use the foot a little, but was often laid up by a fresh attack.

It seemed to me that the disease had about run its course, and was ready to stop if given a fair chance; but that walking upon the foot in its present position, equinus, so ground the affected bones together as to keep up sufficient irritation to prevent this.

Waiting for a period of quiescence, when all sinuses had been closed for ten days, I operated.

The condition at the time was as follows: The disease had lasted seven or eight years, and was still active. The tarsus seemed completely riddled, and showed scars of seven old sinuses, one of which had been discharging up to ten days before. The tibia was about one and a quarter inches shorter than its mate. The general health was fairly good.

I divided the plantar fascia thoroughly; also the abductor pollicis and tendo Achillis. I found the skin under the instep glued tightly to the bones by old adhesions, which I dissected up with the tenotome, subcutaneously.

I made no attempt to force the foot into position, or to break down adhesions. I did not use plaster-of-Paris, but applied a steel shoe with simple up-and-down motion, exerting at first only very gentle pressure. From day to day the pressure was carefully increased; the foot steadily yielding, and approaching a normal position. No pain worth mentioning was caused at any time. Later passive motion was carefully used to improve the flexibility of the joint.

Now the question came up: "How near normal position shall I bring that foot, to insure the greatest usefulness?"

The tibia on that side being one and a quarter inches short, I left the tendo Achillis about one-half an inch shorter than normal, trusting to the tilting of the pelvis to compensate for the remainder of the shortening.

The heel of the shoe for the affected foot was built up one-half an inch. This was not a case in which I could expect a perfect result, but must make the most of what material I had; which is the sum and substance of conservative surgery.

When the patient had regained some power in the foot, and some control over it, I let her begin to use it; at first simply standing upon both feet at once, then taking a step or two leaning on somebody's arm, and so on; still wearing the steel shoe.

Later I put her into a properly made pair of leather lace-boots; the one for the affected foot having a raised heel, a steel shank, and some

building up under the instep to support it. She has worn such ever since.

All this time she was being taught to walk; that is, if she used her foot clumsily, or walked with a "dot-and-go-one" gait, she was cautioned and made to do better. This training is very important in all foot cases; it is a good deal of trouble for the surgeon and for the parents, but if thoroughly carried out it pays well in the end.

At first the leather shoes were worn only a short time daily; this time was gradually increased, the steel shoe being for some time longer worn at night as a precaution. When at last this was given up all treatment was finished.

From the day of operation until now there has not been a single check or an unfavorable symptom.

The foot is now surprisingly well shaped; its motion is excellent, and it is under perfect control. The patient walks strongly, easily and *smoothly*, never complaining, even when questioned, of pain or fatigue.

Such treatment is not so quick, so easy or so striking as a successful resection. The progress is slow. It takes a great deal of the surgeon's and of the parents' time and personal attention. But I claim that in this case, and in many others, the final result will repay the extra trouble.

In the cases of resection that I have examined the foot has seemed to me rather clumsy and with but little motion. The patient has little or no control over it. Consequently the patient instead of walking with a natural "heel-and-toe" action, must *stump* upon it. Often for a long time they complain of some pain in the foot if too freely used.

This is very natural, for in an average case the entire articulation with the leg, consisting of the astragalus and the tips of the tibia and fibula, is removed, leaving the weight of the body to be borne by the ends of the long bones resting directly upon the os calcis, probably also upon the scaphoid and cuboid. A pretty firm union is formed, but there is no true articulation. The whole arch of the tarsus is undoubtedly weakened.

From the mobility of an ankle successfully treated by conservative methods it seems to me that the repair of the articulation must be more thorough than one would expect from the study of pathological specimens. Indeed, all caries of bone has a stronger tendency toward self-limitation and repair than many of us realize. The reparative

power of periosteum, of cartilage, and of synovial membrane seems to be less, but it may be greater than we suppose. Well-treated cases do not often appear among pathological specimens.

I believe few surgeons claim that the result of resection is any better than that of conservatism when successful. But they consider the results of resection far more certain. There I differ from them, if the conservatism be properly and thoroughly carried out. The avoidance of suffering is another plea for resection. In well-treated cases there is usually but little pain. The dangers and difficulties of prolonged confinement are often exaggerated. Children among good surroundings and with proper care thrive surprisingly in confinement.

The long time necessary for a cure, and the amount of attention, both of the surgeon and of the parents, are often considered insuperable obstacles. Yet I have never met parents, whose position in society was comfortable, who were not willing to meet the surgeon more than half-way, and to do all that he asked. If the surgeon himself have not the patience to put such a case through, he should not make orthopedics his specialty.

I have been the pupil and the assistant of Buckminster Brown, and have seen in his practice what can be accomplished by such methods.

I do not claim that all cases should be treated conservatively. I do not wish to condemn resection, but only to restrict its use.

Dr. Henry J. Bigelow used to divide club-feet into two classes. "One class," he said, "can pay for treatment, and is cured; the other cannot pay, and is incurable." We have advanced a stage beyond this standpoint and can now give either class a serviceable limb; but the paying class can still command an excellence in the final result from which the poor patient is debarred by bad surroundings and lack of attention, and the hospital patient by lack of time.

For all such cases resection is *the* method, insuring them, as it does, a serviceable limb. But for the little girl destined to grow up a society belle, more is demanded. Her time in childhood is of little value, and should be sacrificed without hesitation, if by so doing the final result can be improved. The surgeon should labor to secure the very best possible result, the most finished, the most polished, so to speak. And I claim that such a result is most likely to be secured by intelligent, painstaking conservatism.

The cut shows the cast taken before treatment was begun, and the foot as it appears eighteen months after treatment was completed.

