

I regretted this. In view of her history it seemed to me that there was great hope of a brilliant result, but that it was too early, and I so expressed myself at the time.

The after history is that she steadily gained health and soon weighed seven pounds more than she had ever done. Menstruation returned in two months. For a time she was careful as to diet but then became careless. About a year after discharge pain returned near the cardiac end of the stomach, together with slight tenderness, and in the next two months she vomited a few times. This may mean ulcer or it may mean hyperacidity. This brings her history to date, and as she is not controllable at home, I have recommended her readmission.

This patient was so weak when first seen that I doubt if any surgeon would have cared to do any operation. The apparent situation of an ulcer near the cardiac orifice was not especially encouraging for a gastro-enterostomy. The case seems to me to offer encouragement for persistence in treating by non-operative rest.

In summing up this paper I wish to remind readers that it considers only those cases of peptic ulcer that are characterized by pain, vomiting and hemorrhage, without evidence of adhesions or contraction.

The points to which I have tried to call attention are these:

The onset of symptoms may be so sudden that it is impossible to guarantee any human being against death from hemorrhage within a few days.

Patients recover without treatment.

Patients die in spite of any treatment.

A return of symptoms does not of necessity mean the failure of previous treatment.

All treatment is directed either to excising the ulcer or to keeping it at rest, and at the same time feeding the patient.

Hemorrhage may follow any form of treatment, operative or non-operative.

A patient allowed to get up or to suck ice is not undergoing the rest treatment.

Nutrition is of importance as in treating any ulcer.

The rectum can be trained.

Whatever treatment be adopted, its continuance should include a broad margin of safety. This precaution has often been neglected.

#### A CASE ILLUSTRATING THE VALUE OF PERSISTENT CONSERVATISM IN THE TREATMENT OF UNUNITED FRACTURES OF THE LOWER LEG.\*

BY GEORGE H. MONKS, M.D.

EXTENSIVE LOSS OF BONE AND SOFT PARTS IN BOTH LEGS; REPEATED OPERATIONS; BONY UNION ABOUT THREE YEARS AFTER THE ORIGINAL INJURY; RESTORATION OF FUNCTION SOMEWHAT LATER.

T. M., a single man, twenty-eight years old, an iron cutter by trade, was admitted to the First Surgical

\*Contributed to the fifteenth series of Medical and Surgical Reports of the Boston City Hospital.

Service of the Hospital, April 6, 1900.<sup>1</sup> He had been injured while breaking up for a junk-shop an old iron tank which had formerly contained chemicals. The tank exploded while he was engaged in this work, and he was severely injured in both legs. He had also a few other injuries, less serious in character.

The patient was a large, strong and well-developed man. Though suffering from considerable shock he was quite conscious, and his pulse was of good volume and strength.

On the front of the *right leg*, about four inches below the tubercle of the tibia, there was a large wound, in which could be seen an extensive comminution of the tibia. At about the same level there was also a compound comminuted fracture of the fibula. The foot was warm, and the anterior tibial and dorsalis pedis arteries pulsated.

On the *left leg* there was a compound comminuted fracture of tibia and fibula, opening into a large wound about five inches long on the anterior aspect of the leg. The fracture of the tibia was on about the same level as the fractures on the right leg, but the fracture of the fibula was nearly four inches farther down the shaft.

Strips of cloth had been tied about both legs as tourniquets. When these were removed there was slight hemorrhage.

The patient was etherized, and, both wounds having been cleansed and rendered as aseptic as possible, Drs. Gavin and Lothrop removed the unattached fragments of bone, after which the remaining fragments were sutured together with silver wire. The loss of substance, both of soft parts and of bone, was extensive. The wounds were partially closed and drained. A plaster bandage was applied to both legs, from the toes to a point above the knees. Convalescence was uneventful, though no union took place between the fragments. About four months after the operation some sinuses in both legs, which had persisted since the operation, were explored, and pieces of silver wire and bits of necrosed bone were removed. From this time on, for over a year (in the course of which the patient had an attack of erysipelas), repeated efforts — operative and otherwise — were made by Dr. Gavin, Dr. Burrell and myself to secure bony union, and at times it seemed as if the fragments were beginning to unite, but after fourteen months there was still mobility between the fragments in both legs.

On June 20, 1901, I resected the ends of the fragments of the tibia and fibula of the *right leg*, cutting them squarely across, but saving as much of the periosteum as possible. When this was done there was an interval of more than an inch between the upper and lower fragments. These were brought together by silver wire sutures, two for the tibia and one for the fibula. Eight days later I did a similar operation on the bones of the *left leg*. After each operation a plaster of Paris bandage was applied to the leg operated upon.

Eight days after the last operation the wounds in both legs appeared to have healed by first intention. The temperature was normal, there had been little or no pain, and the general condition of the patient was excellent. Eight days later a stitch-hole abscess appeared in the left leg. About a month after the operation the patient was put into a wheel chair. There was still slight mobility in both legs. From this time until the patient left the hospital (about eight months) various expedients were employed to secure union,

<sup>1</sup> This case, when admitted, came under the care of Dr. M. F. Gavin, by whose courtesy I report it. With the rotation of services, however, the man ultimately came under the charge of the other surgeons on the First Surgical Service (Dr. H. L. Burrell and myself).

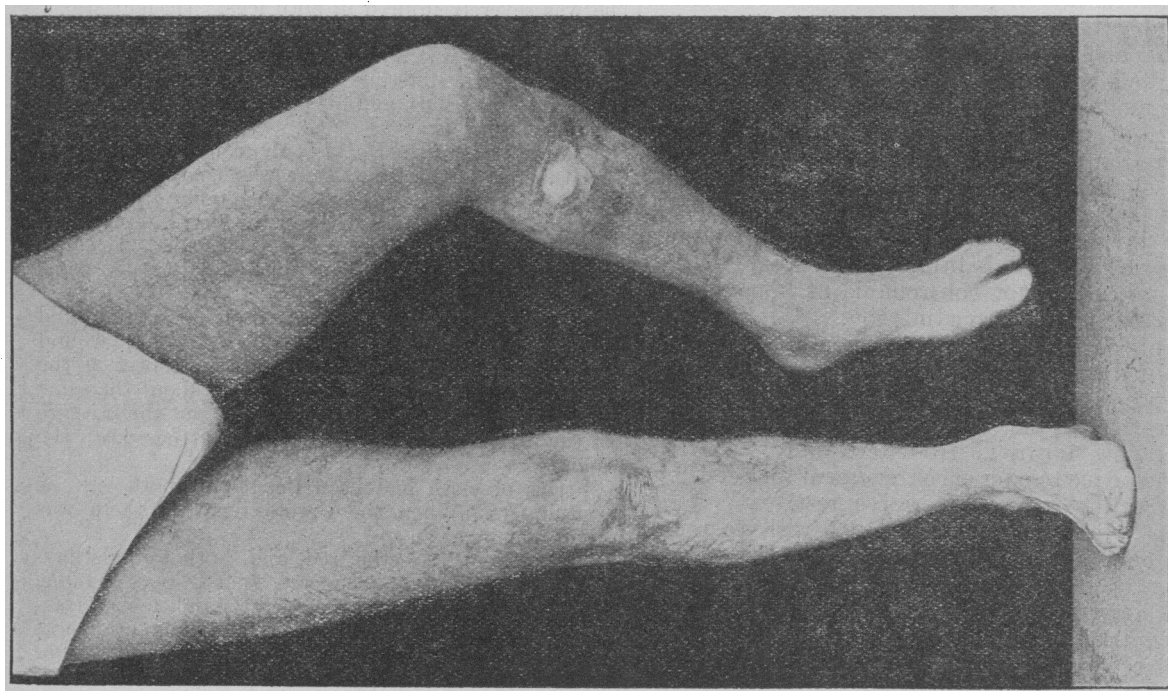


FIG. 2. Showing the patient balancing himself on his right foot. The muscles of this leg have evidently contracted sufficiently to enable him to keep his equilibrium for an indefinite period.

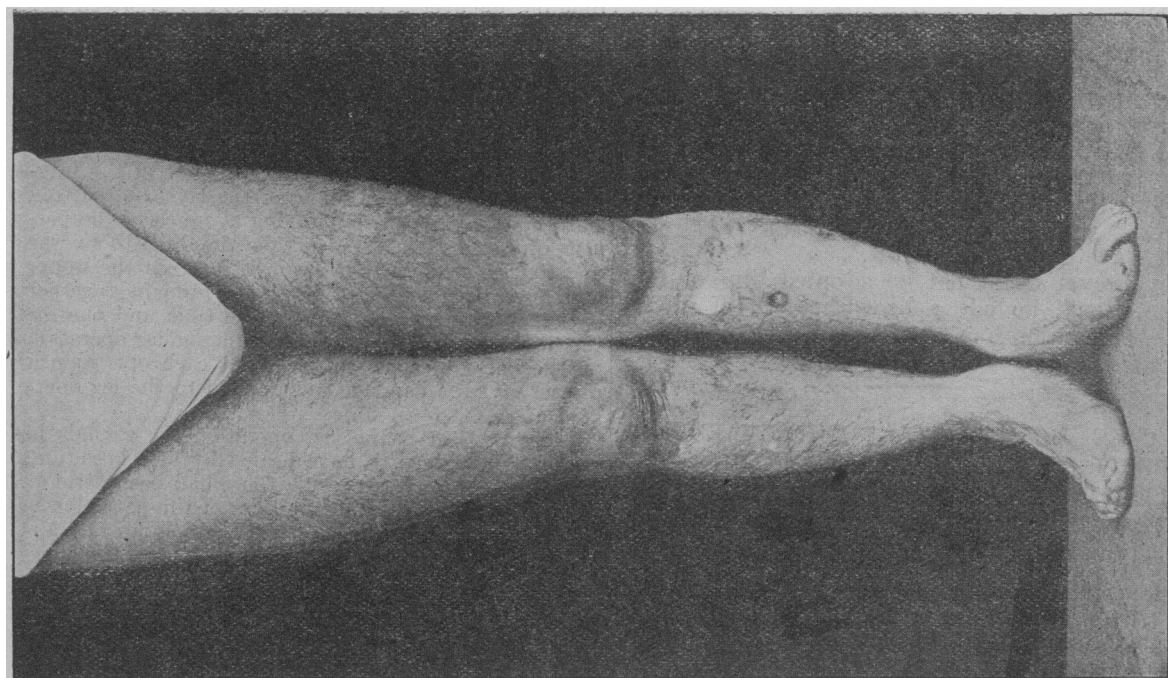


FIG. 1. Showing, from the front, both legs of the patient in a standing position. The lower legs (from knees to ankles) are shorter by about two inches than they were before the accident.

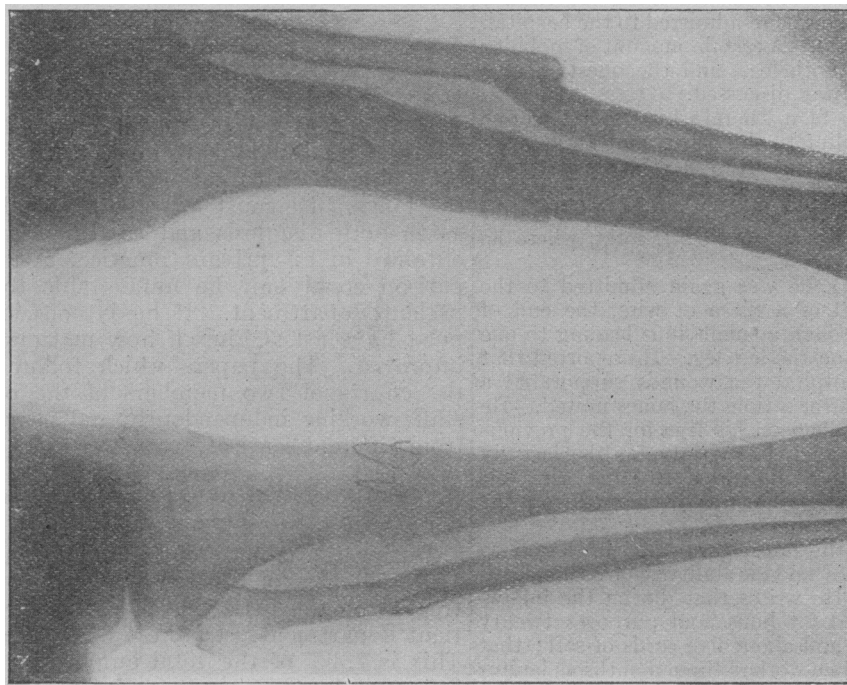


FIG. 4. An x-ray photograph, showing the united fractures in the shafts of both bones of both legs. In the right tibia there are two wire sutures, in the right fibula one, and in the left tibia one. There is some displacement of the fragments of the left fibula, but there is good bony union between them.

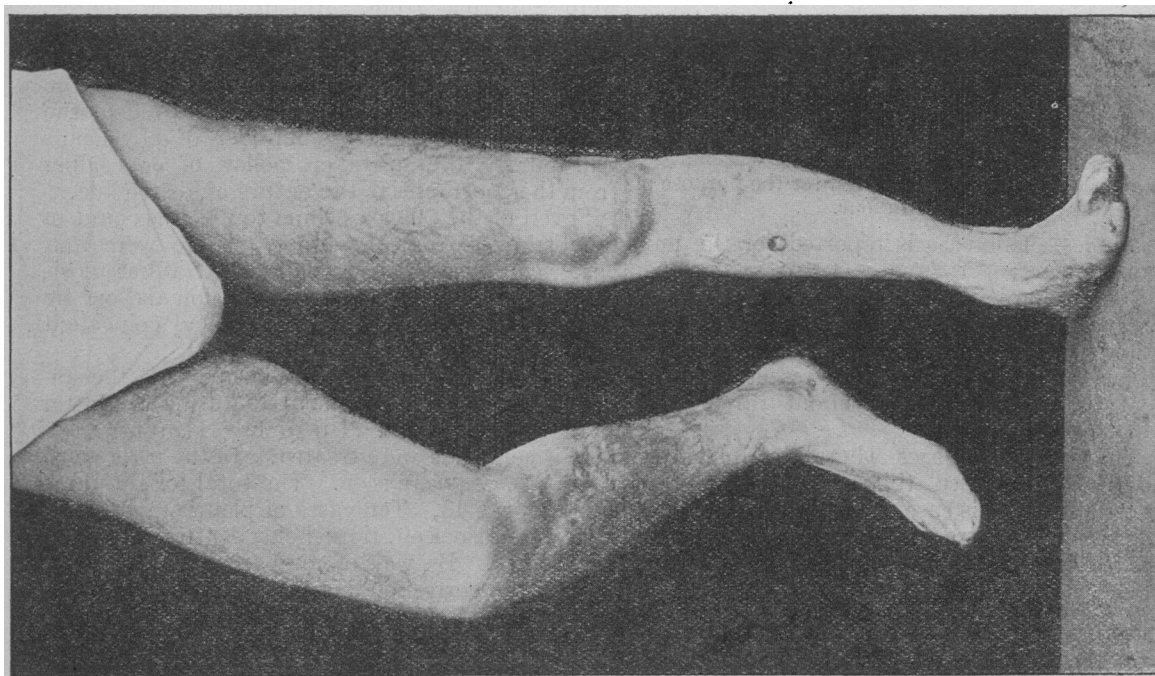


FIG. 3. Showing the patient balancing himself on his left foot. The man could easily support his weight on this foot, but he could balance himself in this position for only a moment. It was, therefore, found necessary to steady him somewhat while this photograph (by time exposure) was being taken. The raising of the patient's second toe is suggestive of his effort to maintain his equilibrium.

but at the time he left the hospital (March 29, 1902), some mobility was still evident in both legs. After leaving the hospital (which he did at his own request) he made frequent visits to the surgical out-patient department. At this time he was using crutches.

On May 29, 1902, he was re-admitted to the hospital, and carefully examined. A certain amount of mobility was still present in both legs, and the question of a double amputation was discussed.

It was decided to fit a Thomas knee splint to one leg and a leather splint to the other, and he was advised to wear the splints, and to use the legs as much as possible, for at least another year.

He left the hospital again about two weeks after his readmission, and went to Nova Scotia, where he remained for a long time.

On April 27, 1905, he was again admitted to the hospital for removal of a piece of wire, the end of which protruded through a small sinus leading to one of the old fractures on the left leg. He reported that after leaving the hospital the wounds suppurated a good deal but that after a time the bones united. He said that he had walked on his legs for the previous eighteen months, though freely only for the last six months. Ether was administered and the wire was easily removed. The patient was discharged from the hospital a day or two afterwards.

He says that in the autumn of 1903 he began to walk without crutches, and his ability to do so increased from day to day. He writes that during the following winter he sawed for household purposes twenty cords of hard wood and about five cords of soft; that in the spring of 1904 he worked three months as janitor of a large office building and attended the boiler for heating purposes, working fifteen hours a day; that during the following summer he did little else than odd jobs, but from September until January he was janitor of two large office buildings, also taking care of a boiler. His working hours at this time were seven-teen hours a day, including Sundays.

A few months later he came into the hospital at my request and photographs and radiographs were taken, from which the accompanying illustrations were made. (See Figs. 1, 2, 3, and 4.) He walked with only a slight limp, and in other respects appeared like an able-bodied man. There was still one small sinus on the left leg from which a very slight discharge took place.

The man is now preparing himself for the purpose of becoming an automobile chauffeur.

*Remarks.* — This case is reported for the purpose of showing:

1. That union is possible in ununited fractures of the shafts of the bones of the lower leg after very long periods of time. In this case union took place about two years after resection of the ends of the fragments, and about three years after the original injury.

2. That, even in cases where the bones are considerably shortened (it was estimated that the shortening in this case was about two inches), the muscles will contract sufficiently to enable the patient to balance himself upon the injured leg.

ACCORDING to the *Journal of the American Medical Association*, in answer to the appeal for \$6,000 by the Maryland Association for the Prevention and Relief of Tuberculosis for a year's campaign against the "white death," \$627 have been received to date.

## TUBERCULOSIS AND RELATED DISEASES OF THE LUNGS IN THE MEDICAL OUT-PATIENT DEPARTMENT.\*

BY W. H. ROBEY, JR., M.D.,

AND

R. C. LARRABEE, M.D.,

Physicians to Out-Patients, Boston City Hospital.

ANY one who has ever served in the out-patient department of a large hospital must have been harassed by doubts as to how much good he has been able to do to patients with tuberculosis of the lungs. He must have compared his results as to both diagnosis and treatment with those obtained in his private practice, and the comparison could only be unfavorable to the out-patient department. If he is conscientious he must have asked himself how matters might be improved. The papers which follow represent the efforts of two members of the out-patient staff, working independently and using material from different services, to answer these questions.

### DIAGNOSIS AND GENERAL CONSIDERATIONS.

BY RALPH C. LARRABEE, M.D.

During the months of June, July and August, 1905, 59 cases of tuberculosis of the lungs were treated on the male side of the medical out-patient department. Of these 55 were new cases. This is 7.3% of the total number of new cases treated. In the corresponding months of 1904, 6.5% of all new cases applying for treatment had tuberculosis of the lungs.

Of the total 59 cases, 22 were classed as early or incipient, 19 as well-marked and 18 as advanced. Few, even among the advanced cases, knew, before coming to the hospital, what they were suffering from. Apparently the public, or at least that part of it that frequents the hospital, is not yet awake to the importance of an early diagnosis in chronic coughs, and of the early treatment of consumption. It is also true that a surprisingly large number of physicians still pursue the mistaken policy of concealing from the consumptive the nature of his trouble.

Seven of the 59 cases came to us on account of hemorrhages from the lungs. There were four cases complicated by well-marked tuberculosis of the larynx, one by pleuritic effusion and one by tubercular peritonitis. Six cases had coincident non-tubercular diseases.

It is, perhaps, worth while to mention the unusual frequency of dry pleurisy during the latter part of the summer. Up to July 11 but 8 cases of this condition were treated. In the next seven days 17 cases were seen. The total for the three months was 43. Ten cases of pleurisy with effusion were also seen, these being scattered in their occurrence. By way of comparison it was found that in the corresponding months of the previous summer there were but 7 cases of dry pleurisy and 9 of pleurisy with effusion. Five of the 7 "dry" cases occurred during three successive days. On comparing the dates of these cases with the meteorological records of the two sum-

\*Contributed to the fifteenth series of Medical and Surgical Reports of the Boston City Hospital.