

vals varying from one to three hours, the bacilli were found in thirteen (35%).

In twenty-two tests with the bacilli on the under surfaces of the *heels* for a similar length of time, the plates were positive in twelve (55%).

In twenty-six tests where the *instep* was inoculated and plates were made after intervals varying from one hour to nine days the results were positive in fifteen (58%).

In fifteen tests with the bacilli on the lower edge of the *side of the sole*, eleven were positive after intervals varying from one to seventy-two hours (73%).

These experiments show that infectious material even when dry will cling to the sole of the shoe and so may be carried long distances. It will be carried longer if, as may sometimes happen, the side of the sole or instep is infected.

It seems probable that infectious organisms are disseminated to some extent by the feet of those leaving the immediate vicinity of a contagious case, although it is not likely that disease is often spread by this means, because there are comparatively few opportunities for the infection to get from surfaces to which it may be carried by the feet to the mucous membranes of susceptible persons. There must be some danger of a physician carrying contagion in this way if he goes directly to the nursery or rooms in another house where children play on the floor.

In any case where a very strict quarantine is considered necessary, precautions should be taken to guard against infection being carried to the rest of the house by the feet of those going out from the room. These precautions are not troublesome or time-consuming. The soles of the shoes may be wet with a disinfectant on leaving the room, or overshoes may be put on before entering and taken off and left at the neutral line on leaving.

A CASE OF SUSPECTED HOMICIDE PROVED TO BE SUICIDE BY STRYCHNIA.*

BY F. J. CANEDY, M.D., SHELBURNE FALLS, MASS.

ROLAND DYER, the subject of this history, was the son of parents too shiftless to care for their own offspring, and at the age of twelve years he was bound out to a farmer in Ashfield to earn his board and clothes.

He first becomes of interest to a medico-legal society two years later, on the afternoon of Sept. 23, in a little country schoolhouse on the outskirts of the town of Ashfield, where he is kept after school and reprimanded by his teacher for conduct unbecoming a gentleman toward a girl schoolmate. He then starts for home, some distance away, in company with another boy, whom he tells while on the road that if his father (meaning Mr. Wiley, in whose family he lives) knows of this affair, he will kill him, and that he is going to commit suicide by taking strychnine. He said that he had tried it once, but had taken

too much, so that it made him sick and he threw it up.

Our next knowledge of him is from Mrs. Wiley, who says that he came in from school about five o'clock, changed his school clothes for overalls and went out to rake up rowen near the barn, Mr. Wiley being at work in the same field, some distance away, on the other side of the barn, but in sight of the boy. Mr. Wiley says that soon after the boy went to work, and before he had raked up a small cock of rowen, his twelve-year-old daughter, who had been in school that day, but not the girl connected with the punishment the boy had received from his teacher, came out and told him what had happened at school, upon which he started to go down to speak to the boy. In doing this he passed on the other side of the barn, so that for a very short time (he thinks less than a minute) the barn was between them, and when he came out on the other side the boy had disappeared, and the next time he saw him his body was found lying in the woods three fourths of a mile away, a month later.

About two hours later, between seven and eight o'clock in the evening, Mr. Wiley appears at the office of Dr. Fessenden of Ashfield, associate medical examiner in my district, some four and a half miles from the Wiley farm, and tells his story in rather an excited manner. He brings with him a pewter mug having some traces of a white powder in the bottom, which he states he found under a lounge in his kitchen, and a small cork which he found lying on the kitchen floor, and he says that a small vial of strychnine which he obtained from a drug store in the spring to kill crows in the cornfield had disappeared from a shelf in the cellar way where it was kept. He further states that upon the boy's disappearance they instituted search for him, blew their dinner horn and called their neighbors to aid them, but without finding trace of him.

This Mr. Wiley was a man who had suffered some years before from some mental aberration of a melancholic type; was unpopular among his neighbors; said to have a violent temper, which often manifested itself in brutal treatment of his animals; and this boy had on several occasions received very severe punishments at his hands, although no one denied that he had been generally kindly treated in this family, and that it was only in these uncontrollable outbursts of Mr. Wiley's temper that he was liable to suffer injury. Mr. Wiley's neighbors and many of his townspeople refused to credit his version of the boy's disappearance, and openly expressed the opinion that he had killed him and secreted the body.

The state police were early called into the case, — two of them responding, — and with two deputy sheriffs a thorough search was at once instituted for the lad, chiefly under the supposition that he had been killed and his body secreted somewhere about the Wiley premises. Two or three unused wells were opened up and explored; the cellar floors of the house and barn, and wher-

* Read at the annual meeting of the Massachusetts Medico-Legal Society, June 7, 1904.

ever there was any indication of recent disturbance of the ground about the locality carefully gone over, — several men spending three days in this work almost without intermission. Meanwhile the officers spent most of their time in questioning members of the Wiley family and others, hoping to get more clues to direct them in their investigation. But nothing was discovered, and after a few days the officers left town, though some of the neighbors still kept up a desultory search of outlying premises, and even sat up nights to watch for any appearance of a lantern, thinking this might lead to some discovery. Nothing having been found in the immediate locality, searching parties on several later occasions explored the neighboring fields and woods for some distance about, and it was on a Sunday afternoon, Oct. 19, twenty-six days after the disappearance, in an organized search by a large number of men, conducted by a deputy sheriff, that the body was found. It was about three fourths of a mile from the Wiley homestead, in a small collection of low growth hemlock, something like a third of a mile into woods of first growth timber, and just off from and in plain view of a wood road leading through.

My associate examiner, Dr. Fessenden of Ashfield, was notified, and at once went to the place and took charge of the body, and it is to his painstaking notes that I am indebted for the position of the body as found here, and his relation of circumstances from which the receding narrative is drawn.

The body clothed in blue overalls and calico shirt, with a weather-stained straw hat on the head, was lying front downwards on the leaves; toes resting on the ground; heels pointing up; right hand under the stomach; the left hand back downwards under the left side of the face, which was turned to one side, the attitude being as though the person had carelessly thrown himself down to rest. There were very few leaves or woods material on the surface of the body, and no apparent disturbance of the forest mold or objects about, but when the body was lifted it was found to have indented itself into the leafy mold beneath, which was very moist and offensive and covered with maggots. All the soft parts, except those covered with clothing, were thickly coated with large, white maggots, which had eaten the flesh to the skeleton. In the skeleton of the right hand was a half-ounce vial, half full of maggots and with a badly defaced strychnia poison label. The muscles of the trunk and thighs were so rigid that the body was lifted by the shoulders and knees without bending, and placed upon a rubber blanket, upon which it was then conveyed to the receiving vault in the Ashfield cemetery.

My first personal knowledge of this case was on the following day, Oct. 20, when I went to Ashfield by order of District Attorney Malone to make an autopsy on the body, in which I was assisted by Dr. Fessenden. I found the body lying on a table in the open field outside the cemetery vault, dressed in blue overalls and

colored shirt, with straw hat lying by its side. It was literally covered with maggots and giving off a most horrid odor. Mr. Wiley, with whom the boy had lived, was present, and identified it as the body of the missing boy, chiefly by the clothing. This identification was confirmed by Dr. Fessenden and others present.

The body measured five feet three inches in length, and the head, face and neck presented nothing but the bare skeleton for inspection — the only exception to this statement being the crown of the head, which had probably been protected from the maggots by the hat which was found on his head where the scalp with its hair had dried down upon the cranium. Maggots had also eaten all the soft parts from hands and feet up to the point where the limbs were covered by clothes. On removal of clothing, the skin was found intact beneath, mostly dark red on the extremities and green over the abdomen, with marked rigidity of underlying muscles in the arms, but less in the thighs. The work of the maggots had extended below the clavicles on the front of the chest, and opened into the thorax, where the lungs were entirely decomposed and the heart partially so. These scavengers had not yet invaded the abdominal cavity, where the peritoneal covering of the stomach and intestines was quite glistening and firm. The stomach, about half full of what appeared to be liquid substance, was tied off at both ends, and placed in a glass jar, which was sealed up. Stomach and intestines not much decomposed, with normal vermiform appendix; liver and kidneys somewhat softened; gall bladder contained a small quantity of bile; urinary bladder empty. One kidney, with portion of liver and gall bladder, was placed in second jar and sealed.

The brain was entirely decomposed. The skull and bones of the face showed no marks of injury and the uncovered cervical vertebræ were intact, but about ready to separate, from the work of maggots and decomposition of attachments, upper and lower sets of teeth complete.

The jars with their contents were carefully packed and sent by express to Dr. William B. Hills, professor of chemistry at the Harvard Medical School, for examination. In separate parcels were also sent the pewter cup, brought to Dr. Fessenden on the night of the boy's disappearance, and the vial found with the body. Ten days later the following report was received from Dr. Hills: —

"I have made a qualitative analysis of the organs of Roland Dyer received from you Oct. 24 inst., and herewith report the presence in the stomach and in the liver of the alkaloid strychnine.

"The white powder adhering to the interior of the pewter cup from the house of Alec Wiley is a salt of strychnine.

"The bottle found near the hand of Roland Dyer contained a very small quantity of strychnine, not sufficient to be visible to the eye, but sufficient to be easily recognized by chemical tests."

This report was placed in the hands of the district attorney, who took no further action in the matter, and the case was dropped here, much to the disappointment of some who had previously been active in the matter and still refused to be convinced that the boy had died by his own hand. They made it so unpleasant for Mr. Wiley that a little later he disposed of his place and left town, which to their mind was further evidence of his guilt.

Clinical Department.

REPORT OF CASES FROM THE SURGICAL SERVICE OF THE CHILDREN'S HOSPITAL, BOSTON, MASS.

SECOND SERIES.

BY DRs. H. D. BURRELL, H. W. CUSHING AND J. S. STONE.
REPORTED BY DR. J. S. STONE.

(Concluded from No. 25, p. 687.)

CICATRICAL CONTRACTION OF THE RIGHT FOREARM AND HAND, WITH EXTENSIVE LOSS OF TISSUE. CORRECTION OF DEFORMITY. TRANSPLANTATION OF ABDOMINAL FLAP.

C. W., a boy of eight years, of Antrim, N. H., was admitted to the General Surgical Service of the Children's Hospital on April 6, 1903, for correction of cicatricial deformity of the right forearm and hand.

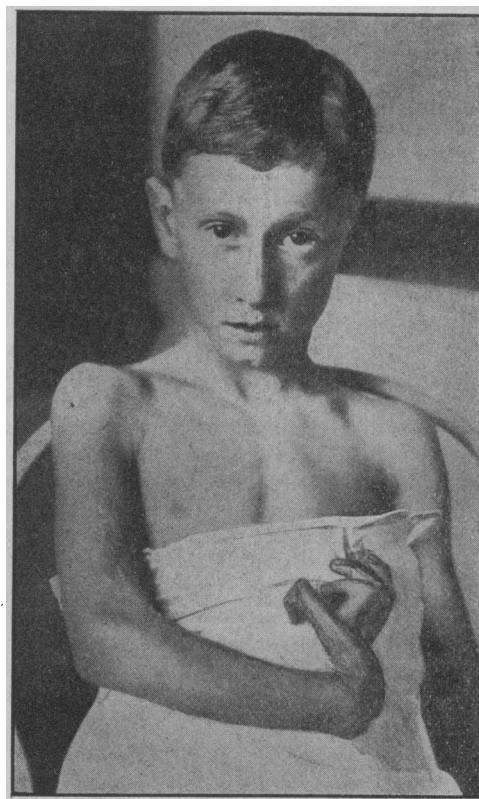
A year and ten months before the right arm had been caught in belting. The thumb had been very badly injured and there had been extensive destruction of tissues on the anterior radial surface of the forearm. At the same time there had been a greenstick fracture of both bones of the forearm. The boy had been treated for a time at the hospital in Hanover, N. H. The thumb had been injured so extensively that it sloughed off entirely. Cicatricial contraction followed.

The deformity existing at entrance is shown in the first picture. The right wrist was held flexed about 110°. The hand was also drawn strongly to the radial side, so that there was great prominence of the styloid process of the ulna. A firm scar extended from the junction of the upper and middle thirds of the forearm on the anterior radial surface down to the wrist. The thumb and thenar eminence were entirely gone. There was sharp flexion of the fore and middle fingers though they could still be moved a little voluntarily. These two fingers, particularly the forefinger, were atrophied as a result of disuse.

On April 11, the boy was etherized and the firm, thick part of the cicatrix was excised. At the edges in places the thinner flexible scar tissue was left untouched. The size of the denuded area is shown well in the second photograph. The scar tissue was excised down to the tendon sheaths and the wrist and fingers were then forcibly extended. The anterior ligaments of the wrist were torn somewhat and in one spot a tendon sheath was torn open slightly. The tendon of the flexor sublimis of the middle finger seemed to offer more resistance than any other structure. All the tight bands of fascia were cut across in the forearm and in three places an oblique myotomy of the tight flexor muscles was done. The denuded area was dressed with tin foil and the arm put on a metal splint with the wrist extended 30°. The fore and middle fingers could not be quite fully extended because of the circulation. Very little pain followed the operation.

Six days later the dressing was removed and a healthy

granulating surface was exposed. Blood clots were carefully removed so as not to start fresh bleeding and the whole area was washed with salt solution. A flap of skin and subcutaneous tissue, an inch and a half by six inches, was then dissected from the abdominal wall,



Cicatricial contracture of right forearm before operation.

being left attached by its upper and inner long side. The flap reached from the median line just above the umbilicus, upward and outward, on to the three lower ribs. The ends and the long free border of the abdominal flap were then carefully stitched with continuous catgut to the ends and the radial border of the denuded area of the forearm. The forearm was then fully supinated in order to bring the raw surfaces of the flap and forearm together; and partly in order to maintain this apposition and partly to narrow the denuded area on the abdomen two quilted sutures of catgut were passed through the bottom of the fold in the flap close to its attachment to the abdomen, downward behind the forearm and though the skin beneath the exposed area from which the flap had been taken. The corners of the abdominal wound were sewed together to narrow the raw surface which was left. This surface and the lines of suture were covered with tin foil and a large sterile gauze dressing. A plaster bandage fixed the hand in corrected position and prevented movement on the abdomen.

Two weeks later a window was cut in the plaster through which the dressing was changed several times as the odor of the discharge from the wound became offensive.

Twenty-three days after the abdominal flap had been sewed in position the plaster was removed and the flap cut free from its abdominal attachment. The circulation in the severed flap remained good enough to cause a very slight amount of bleeding. The discharge from the raw surfaces was carefully washed away with salt