

ation twenty-four ounces of brandy were given, the amount being then reduced to eight ounces *per diem*. Patient reacted well. The dressing was changed every morning, the discharge being free, but not excessive.

October 1st. Patient a little delirious during last night, but otherwise doing well. Champagne, one pint, in addition to brandy. Moved to one of the small tents.

October 5th. Has been very restless and noisy every night until last night, when he slept under the influence of bromide and chloral. Part of the sutures removed yesterday, when two small sloughs came away. Quinia, five grains, three times a day. Champagne omitted.

From this date patient continued to improve without interruption. The wound contracted to a small sinus, which was still discharging slightly at the time of his discharge, November 16th.

AMPUTATION AT THE ANKLE WITH HEEL FLAP.

CASE V. Harry C., three years of age, was run over by a railway train October 12th, and was brought immediately to the hospital. His right foot was found to be crushed, the ankle-joint being opened, and most of the tarsal bones being more or less injured. The amount of shock not being very great he was etherized at once, and the foot removed at the ankle-joint. The malleoli were cut off with a scalpel, ossification having not yet taken place. The os calcis was dissected out, and a posterior flap made of the skin of the heel. Dressed with Lister gauze daily.

Patient has had very little pain, and the amount of discharge has been small. Additional support has been afforded the flap by means of straps of rubber plaster. At the end of a month the wound has healed with the exception of a small sinus at the side and a small granulating patch in front. Not yet discharged.

SARCOMA OF THE FOOT; AMPUTATION.

CASE VI. Fanny M. entered the house October 25th with a tumor of the heel, which she first noticed eight years ago. At that time it was about the size of a filbert, and was not very painful. A year ago last March she had the tumor removed in this hospital, it being described as a tumor, size of a small orange, painful on pressure, firm, and not lobulated. It soon began to grow again, and at the expiration of a year she underwent another operation at the Massachusetts General Hospital. After the latter operation the tumor grew rapidly, and now involves the whole of the heel and part of the plantar surface of the foot. Large nodules of exuberant granulations are pushing out in all directions, and the intervening integument is marked by numerous veins, which ramify over the surface of the tumor. Her general appearance is that of extreme anæmia, although she is not at all emaciated. The glands in the groin are not enlarged.

October 28th the leg was amputated in the same way and with the same antiseptic precautions as in Case I. The blood which was lost during the operation was extremely dark in appearance, and coagulated only after long exposure to the air. She rallied well after the effects of the ether had passed away, but complained of pain in region of heart. Gave morph. sulph. subcutaneously, one eighth grain, ordered brandy, two drachms, every hour. In the evening her stomach began to reject the brandy, and it was omitted. She was then given nothing but iced champagne by

mouth, brandy and milk being given by rectum every three hours.

The next day she began to reject the enemata, and several times she vomited the champagne.

October 30th another subcutaneous injection of morph. sulph., one eighth grain, was given on account of the same pain in cardiac region. The enemata were continued, but had to be kept in by manual pressure on the anus. At four P. M. she was given an intravenous injection of warm cow's milk, three ounces, Aveling's apparatus being used. This produced no appreciable effect, for she continued to sink until 5.55 P. M., when she died.

The tumor was accidentally destroyed so that no examination could be made, but the probable diagnosis was sarcoma.

A FATAL CASE OF POISONING BY GELSEMIUM.

BY WM. WATKINS SEYMOUR, M. D. (HARV.), TROY, N. Y.

I REPORT the following fatal case of gelsemium poisoning in the hope that it may bring out other cases which have occurred, and may draw the attention of experimentalists to the necessity of determining its proper antidotes and their indications. Since the termination of the case I have searched for everything I could find relating to the drug, and find only a single case of poisoning mentioned (a fatal one reported by Dr. Wormley). The case I report is the third which has come to my knowledge. One occurred in the consulting practice of Dr. Wm. L. Cooper, of Troy, then of Michigan, where, to a lying-in woman, her attendant gave by mistake for ergot a teaspoonful of the fluid extract of gelsemium. Ten minutes later Dr. Cooper saw the patient, who was extremely prostrated, almost pulseless, and the respiration failing. He administered mustard and ginger several times, and stimulants, and the patient recovered. A few years since a young lady, of this city, died in Saratoga from a teaspoonful of the fluid extract of gelsemium, administered by mistake for geranium.

My patient was a very muscular man, twenty-eight years of age, about five feet ten inches in height, and one hundred and eighty pounds weight. I was called by a relative to see him December 6th, at three P. M. The relative said he had been drinking more or less for several days, but on that day instead of drinking he had taken at intervals some drug, which the patient told him was gelsemium, to quiet his nerves. His condition finally became such that the relative called me, fearing that what he had taken might prove fatal. I found the patient with clothes on lying upon bed, dozing, and looking very much as if he had been upon a spree; he was easily roused, and talked intelligently; the face was pale; eyes flushed, pupils moderately dilated, and reacting to light, slight ptosis of both upper lids; pulse strong and full, about 100; no odor of alcohol about the breath; skin seemed normal to touch. At first the patient would not tell me what he had taken, but finally said he had taken three drachms of the tincture of gelsemium in twenty-drop doses, every four hours, had repeatedly taken such doses to quiet his nerves after drinking, and could stand any amount, saying he knew all about the drug, as he had studied medicine. Finally he said he had taken two ounces of the tincture. I talked with him some twenty-five minutes, and as the last dose had been taken suffi-

ciently long for its absorption before I saw him, and as there was nothing alarming in his condition, I advised detention in his room, watching, and at any sign of failure of heart or respiration, to give stimulants freely, and call me.

At four P. M. I was called by messenger, who said the patient had eluded his watcher a few minutes before, and had procured at a drug-store, a thousand feet distant, one half ounce of fluid extract of gelsemium, which he drank. I hastened with stomach-pump to his quarters, and could not find him. With his uncle I searched the hotel, top and bottom, as the watcher said he had not passed him, but in vain. After a twenty-five minutes' search we found him at a shop a couple of hundred yards distant. He was sitting in a chair, but had little control over his movements, the limbs were relaxed, face pale; he recognized us, and spoke, but said he would not take an emetic. I had him held, and while his head was thrown back I introduced a funnel into one nostril, and poured a solution containing twenty grains of sulphate of zinc into the throat. The patient was obliged to swallow, and copious emesis followed. He then voluntarily took plenty of warm water, and a second dose of ten grains of sulphate of zinc, and vomited it also. However, he became speedily unconscious; pulse 130, respiration 40, and entirely thoracic; pupils moderately dilated, but reacting to light. I gave two drachms of brandy subcutaneously, and an ounce by rectum. Then, as the condition did not materially improve, the lips being blue, and skin livid and cold, I faradized the diaphragm and intercostal muscles, applying the electrodes eighteen or twenty times a minute. The respiration dropped to 20, and became full and natural, the pulse became stronger, and the color of skin and lips became rosy. Such was his condition at seven P. M. that I went to get my dinner, and was absent fifteen minutes. When I returned he was breathing long and full; pulse about 130; color slightly blue. I then repeated the injection of brandy, one ounce, and the faradization of the respiratory muscles. With this treatment the breathing became better, but the capillary circulation was poor, there being a tendency to lividity and cold extremities and skin. Applied heat, gave one fortieth grain of atropia subcutaneously to strengthen heart and improve capillary circulation. Pulse and color improved, but did not last long. I tried inhalations of nitrite of amyl without effect. I then repeated brandy, one ounce by rectum, faradic current to diaphragm and spine, and gave carbonate of ammonia subcutaneously. At 9.15 there was a tendency to lividity, skin was cool, and the pulse 135, still I regarded his condition as such that I told his uncle he might go off for fifteen or twenty minutes to get something to eat (he not having eaten since morning), but proposed first that we should move the patient on the blanket on which he lay nearer to the fire, as the room was becoming cold. This was done by grasping the four corners of the blanket, and gently lifting him. Immediately after his face became pale, his lips blue, the respiration and heart stopped, and the patient, at 9.25 P. M., was dead.

No autopsy was had.

In view of the lack of experimental authority I did not dare give large doses of atropia or digitalis, for I feared that to prove effective they would have to be given in doses so large as, under ordinary circumstances, of themselves to prove fatal. When I first used the faradic current (Kidder's one-cell battery) the reac-

tion was prompt and very satisfactory, but it seemed, later, to lose its power.

For a drug which is so much used there seems to be very little known about its toxic doses and antidotes. My father, Prof. Wm. P. Seymour, of Troy, who has prescribed it a great deal, particularly in gonorrhœal inflammation, regards the doses usually given in the books as likely to give rise to all the disagreeable physiological though not toxic effects. Two minims of the fluid extract three times a day frequently affected sight so that a book-keeper could not write, and four minims three times a day frequently produced weakness of legs and staggering.

I am reminded of the toxic effects of another drug in popular use for criminal purposes, namely, tansy. This year I have seen two cases where the drug produced convulsions and delirium, and in one coma and dislocation of the jaw from convulsive action, and I am informed that in many cases it has produced dangerous and, in some cases, fatal inflammation of the bowels without any oxytoxic effect, and find that the books give little or no information regarding its antidotes or mode of destroying life.

DEATH FROM SUNSTROKE THIRTY-FOUR HOURS AFTER EXPOSURE. AIR OR GAS FOUND IN THE HEART.

AUGUST 7th, at 2.40 A. M., I first saw Marshall T. This was Sunday. On Friday preceding, an intensely hot day, he was exposed to the sun's rays for the greater part of the day. Returning home he ate a light supper, and retired, having made no especial complaint of feeling unwell. Saturday morning he rose, ate a light breakfast, walked to a neighbor's, who noticed nothing unusual, returned, and immediately went to bed, where he remained until death took place. About six P. M. Saturday he complained of "feeling sick," and between eight and nine became wholly unconscious. They had given him about fifteen grains chloride of ammonium, which was the only medicine he had taken.

The most persistent questioning elicited only these meagre facts. He appeared to have made so little complaint that he was left almost wholly alone for nearly twenty-four hours.

No history of nausea, and no vomitus found.

When I saw him, six hours after he became unconscious, he was lying on his back, motionless, skin burning hot and dry, temperature 109.1° F., pulse 132 and feeble, respirations 24; no stertor; pupils about normal size, irresponsive to light, conjunctivæ slightly congested; respiration shallow, moaning with nearly every expired breath; tracheal râles. Patient had had a large involuntary defecation. I drew off eight ounces of urine of a strong, peculiar odor, in which, afterward, a trace of albumen and a few granular casts were found. The man was evidently dying, and lived only fifteen minutes after I saw him.

The autopsy was made twelve hours after death, under the direction of Dr. Geo. B. Twitchell.

Rigor mortis slight. Peripheral vessels in the head very much congested. Considerable congestion of the pia mater. More serum than normal in the left lateral ventricle. The whole brain substance was softer than normal, but nothing more pathological was seen. Extensive and firm pleuritic adhesion around both lungs.