

the patient returned to Dr. Worcester (41 days) was 89. He repeated the operation 46 times, making 135 injections in 78 days.<sup>1</sup> In the two other cases treated in this way, I continued the injections 7 days and 59 days. Without their use, I feel confident that all three of these patients would have succumbed.

7. So large an amount of opiates as was administered in this case is, I think, very seldom justifiable. Enough should be given, in every case, to control pain and restlessness, and secure sleep, and *no more*. In some cases, therefore, I have not given more than a single daily dose during the first three or four days only; while in this case, from 145 drops of McMunn's elix. down to 90 drops were given every twenty-four hours during the first five days. I have always given the opiates, and the nourishment, *per rectum*, if the stomach is irritable.

NEW YORK, March, 1864.

ART. VI.—*Cancer of the Stomach.* By W. S. W. RUSCHENBERGER, M. D.  
U. S. Navy.

NAVY YARD, Boston, Mass., May 14, 1863. Mr. G. K., acting master U. S. Navy, aged 49, native of Massachusetts, about 5 feet 6 inches, weight 140 lbs., has been engaged generally in commercial pursuits, and has not been much at sea. Habitually abstemious; drinks water chiefly; does not use tobacco.

About six months ago, and ever since, he feels, whenever he ascends a high flight of stairs to the sail-loft where he is often called in the course of his duties, weak in the knees, then palpitation of the heart, and recently, when he reaches the top of the stairs, he is speechless for some seconds. No cardiac sounds of abnormal character are observed. Skin sallow; anata clear white; constipated; flatulent; tongue coated. Has acid and sometimes bitter risings in the throat. He has been constantly engaged in his duties, which at times have been attended with mental worry, and being zealous in his work, he has habitually eaten rapidly, and at irregular intervals. Bowels not moved for four days. R.—Ipecac. pulv. ʒss; Ipecac. vin. ʒss; Aq. font. ʒiss. M. Ft. haust. Emesis to be promoted by infusion of chamomile. After operation of the emetic, arrow-root or gruel, if there is desire to eat. R.—Hydrarg. chlor. mitis gr. i; Sacch. alb. gr. v. M. Ft. pulv. et in chartulas vi dividend. S. One, dry on the tongue every four hours.

15th. Vomited freely; ejected a considerable quantity of brownish, ropy mucus. Bowels moved moderately. General aspect and hue of skin much improved. Ate toast with weak tea this morning with zest. Pressure of waist-band or sword-belt causes discomfort at times. Continue calomel. Dry cups to epigastrium for thirty minutes. Senna ext. fl. ʒij h. s. s.

16th. Bowels free; relieved by the cupping; feels much better. R.—

<sup>1</sup> The last injection being on the eighty-fourth day after the operation.

Ferri. chlorid. tinct. ʒiij; Belladonnæ tinct. ʒj. M. S. Twenty drops in a wineglassful of water ten minutes before each meal.

18th. No eructations; but very little soreness over the stomach; constipated. Sennæ ext. fl. ʒij h. s. s.

20th. Bowels free; feels generally better. Persist.

24th. Constipated; repeat sennæ.

June 9th. About a week since moved his residence from the Navy Yard to Newton, Mass., for the summer. Flatulent; soreness of abdomen on moving, but tenderness very slight. Bowels not free. R.—Strychniæ et ferri citratis ʒiiss; Rhei pulv. gr. xij; Glycyrrhizæ ext. pulv. ʒj. M. Ft. mas. et in pil. xxiv div. Cap. i. q. q. 6ta h.

24th. Omit pills. R.—Bismuth carb. ʒiiss; Glycyrrhizæ ext. pulv. gr. x. M. Ft. mas. et in pil. xxiv div. Cap. i. q. q. 4ta h.

July 29th. Adnata pearly; complexion somewhat sallow; feels pretty well. At night has pain running through from stomach to back. Persist.

August 15th. Has been on a trip to the White Mountains. Tongue pale and slightly coated; bowels less constipated than usual; complexion of a straw tint; adnata pearly; pulse 92, small, soft; thirsty. As long as he is moving about feels very well; appetite fair; no longer feels oppressed after eating; but on lying down at night, or rather about fifteen minutes after being in a recumbent position, has a pain which passes between the epigastrie region and dorsal vertebræ, of which the sixth and seventh are a little sensitive to pressure. This pain hinders sleep. It is quickly dissipated in the erect posture by friction over the back. To obtain sleep he has tried a semi-erect position in a chair, and believes he slept last night about two hours. There is some sensitiveness to pressure at the scrobiculus, circumscribed to a region about two inches in diameter; no tumour perceptible. There is still palpitation on going up stairs, &c. At somebody's suggestion, he says, he drank cider, but it did not agree with him: one day he ate a good dinner and drank champagne without inconvenience. Auscultatory sounds appear to be normal. Dry cups p. d. for thirty minutes statim. At night apply emplastr. lyttæ, three by four inches. Valerianæ ext. fl. gtt. xxx at bedtime, and repeat every hour pro re nata. R.—Amygdalæ amaræ ol. gtt. vj; Conii ext. gr. xviii; Bismuth. carb. ʒiiss. M. Ft. mas. et in pilulas xxiv dividenda. Cap. i. q. q. 4ta h.

Sept. 3d. States that the medicines (prescribed August 15th) did not procure sleep, and that a practitioner visiting his house at Newton, Mass., "prescribed some mercury pills," and since that time he had felt better. Although Mr. K. has been in the Navy Yard frequently since the 15th August, he did not present himself to me. Since I saw him he has lost flesh; his complexion is unchanged.

I am indebted to Dr. W. F. TEULON, a gentleman of long and large experience, the practitioner alluded to above, for a copy of his notes of the case. He says, August 17th, speaking of Mr. K., "Of late he has suffered from indigestion and constipation, liver-complaint with tendency to jaundice, inactivity if not thorough disease of the mesentery, inducing tabes and a painful remittent affection of the gall-bladder, accompanied probably with obstruction and gall-stones. His pains return every night after going to bed, obliging him to crouch forward, then to rise and sit in an easy chair, where he cannot keep one position long. At such times he has cold feet and flatulence with distension of stomach, which increases the pain, and relieves him when it escapes. His heart and pulse are quick

and forcible, as if from running; but it does not give signs of other than symptomatic disorder. In the day he can make moderate exertions, and seems to have great strength of nerve, considering his distress.

"When in the paroxysm of pain, to take tinct. gelsemin. ʒj, and repeat once an hour, three times. To eat two or three prunes infused with senna and sugar, every morning. Tamarinds also may be used. Sea-water: use as an injection, and as an ablution every morning; also in a compress to the stomach and bowels, after anointing them with R.—Ung. hydrarg. biniodid., Adepis S., aa ʒiv. M.

"When troubled with flatulence, take acid sulph. aromat. gtt. x in an ounce of water, and repeat every half hour till relieved. R.—Hydrarg. chlorid. mitis, Opii pulvis, aa ʒj; Solani. lycopersici. ext. ʒij. M. Fiant massa cum aqua q. s., divide in pilulas No. xl. Take one at six o'clock every evening.

"August 27th. Has been much relieved of the pain and able to lie down and sleep; also to take exercise with more than his usual strength. He can also use a better diet, and has improved hopes and feelings. On the other hand, he is tender and bloated in the abdomen and ankles, and has a difficulty in secreting and voiding a sufficient quantity of urine. A teaspoonful of fluid extract of taraxacum morning and evening. Apply wilted burdock leaves to the feet towards bedtime. A wineglassful of infusion of parsley seed three times a day.

"Sept. 1st. Much relieved of his old pain, and finds the bowels in better condition. The black and seybulous masses are disappearing, and bilious feces coming down. He now feels himself weakened by the calomel pills, but is more clear of jaundice. His skin is very itchy, and has a dead wilted look, for which I recommended the Turkish bath. The infusion of parsley seeds has been very useful.

"8th. He did not go to Boston to-day because he had only two hours sleep last night, owing to colic in the sinister half of the abdomen. He made a hearty dinner yesterday of roast-beef and boiled rice. He says that beef, however good, does not agree with him. He has made too free at the table lately, whereby he suffers from indigestion and pain, though not in the same place as formerly. He says he can walk better, and feels himself stronger. Wishes to go to Philadelphia; to which, as the weather is fine and the mercury has not affected his mouth, I conceded. Sodæ subcarbonas to be added to the bath, to promote clearing and opening of the skin. Tinct. sarsæ rad. Hispani, Tinct. Septauidriæ rad., partes æquales. A tablespoonful with each dose of taraxacum in the draught of water.

"13th. Has returned from Philadelphia. Says that everything he eats distresses him. A wineglassful of infusion of peach leaf to be taken just before eating.

"15th. A dejection this morning, rather dry, after waiting six days. He attends to his office duties, eats but little, and that little gives him uneasiness. He has but eight pills (calomel, &c.) left; the opium in them seems to affect him more than the mercury, yet he has frequent pain. Every forenoon or morning take a sufficient quantity of aq. magnesiae citratis to regulate the bowels. Liq. bismuthi nitratis, a third of a teaspoonful, with a teaspoonful of the mixture of sarsa (Sept. 8), and wineglassful of the infusion of peach leaf.

"18th. Has driven to Ashland, and worked considerably, eating liver and other meats, but in general has pain after eating. R.—Zinci cyanidis gr. ss, in a large spoonful of water when the pain in the stomach is severe.

"22d. Takes his last calomel pill to-night. He has a great irritation at the stomach, but there has been no salivation. The new powders appear to affect him but little; the same is observed of the liq. bismuth. nitrat. and peach leaf. The gelseminum occasions dizziness when he takes it three or four times. I advised him to take it every half hour while in severe pain. His head is generally well. Pulse about 80, and rather hard. R.—Podophyllin, papaver, aa gr. x; Symphytum pulv. gr. xx. M. Ft. pil. xx. One every night in place of the calomel pill.

"28th. Weak and distressed. Has suffered much of late from pain in the epigastrium. Bismuth. subcarb. gr. v in a large spoonful of water every four hours. Creosoton puris, chloroformi, aa ʒj; Spiritus rectificat. ʒvj. M. S. Ten drops in a tablespoonful of water every four hours, if distressed. Hyoscyami ext. fl. gtt. xx in a tablespoonful of the bitter infusion, with the pill at night. Hops and dried peach leaves, aa ʒij; Lime-water lbj. Infuse and strain.

"30th. Has been in distress more or less ever since; constant gastrodynia, and of late, diarrhoea, operating once in five hours, and very little rest or nourishment. Opii, in pill, gr. iss at night, in place of the podophyllin. Let the dose of hyoscyami be reduced to gtt. x. A tablespoonful of infusion of cranesbill after each alvine operation. Morphiae sulphatis liq., a teaspoonful every hour, when in extreme pain, till relieved. Continue bismuth and creasote.

"Oct. 1st. Returned to his residence in the navy yard.

"2d. Has had two better nights, but has become costive again; cannot take any food without its exciting pain. He had a sort of ptyalism for one day. Since he ceased taking the mercury, it has apparently affected him more than while taking it. Carbo ligni salicis, a level teaspoonful three times a day in beer, lime-water, or mucilage of elm bark. Acid. hydrocyanic., U. S. P., gtt. v, in a large spoonful of water every hour, while in severe pain. Experiences little effect from the morphia; more from the creasote. Being costive, to omit the cranesbill, and take citrate of magnesia again.

"5th. Has experienced a gratifying amount of ease, and slept well up to last night, without using hyoscyamus; but he has become very costive, and early this morning he threw up a large amount of yellow bile, and again early in the afternoon. He is very sensibly weak, and takes lager beer as a tonic. I advised him when sick to use infusion chamomile, and to wear over the stomach emp. ferri rub., four by eight inches.

"7th. Found him very drooping and poorly. He could not bear the plaster over the stomach, so took it off, and removed it to the back. Yesterday he ate a sweet potato, and suffered much from flatulence and distension. No alvine motion for a week. Salt water lbss to be injected every three hours, till the bowels are relieved. A plaster of equal parts of turpentine and simple plaster to be worn over the stomach.

"9th. Bowels copiously relieved by the second injection. He feels but little improved, there remain so much flatulence, pain, and spasm about the stomach. He takes chamomile infusion frequently. He vomited this morning about a pint of a bilious ropy mixture. Complexion much whiter than formerly. Hyoscyamus does not make him sleep, although he takes a teaspoonful; hence, to take a teaspoonful of morphia with it every night, and a podophyllin pill after every costive dejection. To take the creasote and hyoscyamic acid alternately, every third hour. Suspend bismuth and the infusion of hop and peach leaf. R.—Ipecac. pulv. gr. v. To be ad-

ministered in a draught of chamomile infusion when vomiting is threatened. R.—Magnesiæ calcinatæ, Carbo. ligni salicis, partes æquales. M. A teaspoonful twice a day. R.—Prunus cerasus, ext. fl., a half teaspoonful in water, after each meal; if there is nausea, two teaspoonfuls of French brandy. R.—Ol. juniperi ʒj; Æther. sulph. ʒvij. M. Moisten a small lump of sugar, and wash it down with water or chamomile tea, to relieve flatulence and pain. R.—Ol. abies canadense ʒiv; Liniment. ammoniæ ʒiss. M. To rub over the back or stomach, or any part in pain.

"12th. Was out to-day; suffers less pain; does not vomit, but is extremely weak. On his return, ordered him a teaspoonful of brandy in a glass of water. Removed the plaster from the stomach, because it increased the pain. Had an interview with his former physician, Dr. Ruschenberger, who remarked that hepatic disorder was not the primary one, but gastric, and that I gave him a rather large dose of podophyllin.

"14th. Yesterday was pretty comfortable, but at night was greatly distressed for two hours, then vomited, and had a thin dark stool, indeed three such. To-day, just after dinner, was much distressed. The prussic acid seems to relieve him, but none of the anodynes affect him so favourably as the gelseminum, to which it may be prudent to return. The creasote and hydrocyanic drops alternately, every two hours, if the pains be urgent. Infusion of hop in place of chamomile. Rennet whey for ordinary drink. Aqua ammoniæ bicarbonatis, a teaspoonful in water for acidity or exhaustion.

"16th. Expressed himself better to-day. He does not feel so much pain after eating, and does not eat so much. Takes no spirit; usually has some pain a little while after taking the hyoseyamus. Has not vomited for two days; no alvine dejection. Can sleep better, and on either side, but complains of weakness, particularly at the knees. His tongue is very moist, watery. No pytalism. Pulse weak, sharp, but 88. Some pain felt in the region of the spleen. Tinct. of cocculus Indicus, ten drops in water after each meal, to replace the prunus cerasus, ext. fl. Add the prunus cerasus to the taraxacum. A teaspoonful before breakfast and supper. Continue creasote and hydrocyanic acid alternately; also, the rennet whey and infusion of hop. Suspend the hyoseyamus, the podophyllin, and the opium. Take the carbo ligni alone, when the bowels are open, and with magnesia when they are not. Take morphiæ sulph. sol. ʒij at 8 o'clock P. M., and an extra teaspoonful, if watchful. If costive for two days, on the following morning use an injection of sea-water.

"19th. Vomited more stringy, crude material yesterday morning. Has had less pain since. Has had four alvine dejections since Friday. He is weak and low-spirited, yet much better than he was. Feels better without the hyoseyamus; likes the effects of the creasote, of the hydrocyanic acid, oil of juniper, and carbonate of ammonia. Has had several relapses of local pain which were relieved by rubbing with the liniment. Yesterday when he vomited he brought up a spoonful or two of fresh blood. Says his stomach feels as if scraped. Complains of articular pains resembling rheumatism. Use less of the magnesia and carbo. ligni. To drink albumen in whey and mucilage of slippery elm. Take half a pill of the podophyllin, &c., every costive day, and an opium pill if too relaxed. Pill. sulph. morph. gr. ss every night; a teaspoonful of gelseminum at any time for pain.

"21st. After a few minutes of distress, he vomited again yesterday, a chymous mass with some admixture of bile, though less than before, and some

charcoal. I was glad to see less of bile, but the carbo appears to irritate. I therefore suspended it, and ordered a return to the bismuth. Recommended to give the morphia earlier, *i. e.*, at six o'clock, or before supper, that he may get to sleep earlier. As meat always causes pain, to leave it off and use fish. I advised him to take a morsel of cheese, and also cauliflower and parsnips with sweet butter. R.—Quiniæ disulphatis gr. iv; Aquæ ʒiv. M. A teaspoonful three times a day, with ten drops of tincture of cocculus.

"23d. He has vomited more than ever, seemingly more than all his ingesta, and suffered a great deal of pain, but not of so fixed a character. Mrs. K. thinks the creasote and hydrocyanic acid in continuation procure more ease than anything else. He is weak, but has a proper taste for his food, and is evidently delivered of an immense load of bile. He continues costive. Infusion of eupatorium perfoliatum in place of the infusion of hop. Broth of clams or oysters. Wine whey occasionally. Cerei oxalas gr. iij two or three times a day in spoonful of water to settle the stomach. He has taken during this month nearly an ounce of officinal prussic acid. The effect was agreeable, but not durable. I have on no occasion remarked any cumulative quality in this drug.

"26th. Found him in bed, not because he was decidedly worse, but because he preferred it. Has not vomited since Saturday night, then twice, but not nearly so bilious as formerly. There has been a gradual diminution of the bile in each of the quantities ejected. His tongue looks well, is clean and watery, not livid and glairy as formerly. The adnata still look pearly, but less so, rather like ivory, each canthus a little yellow, but the blood and colour have returned to the skin. He is withal very constipated, and what he passes is scybalous. An injection of magnesiae sulph. ʒss in aq. marin lbss promptly relieved him when used. Dr. Ruschenberger counselled me to use sugar of milk in place of cane sugar [without seeing the patient]. R.—Ammoniae mariatis pulv. ʒiiss; Rhei pulv., Gentinae ext., aa gr. xij; Acaciae pulv. q. s. M. Fiant pilulae No. xlviij. One with a spoonful of infusion of eupatorium perfol. three times a day. Emp. ammoniaci extenso in alutem, dig. 8x8, to wear on the epigastrium.

"28th. Found him curled up in bed, very languid and depressed. Has again rejected everything from his stomach, and apparently much more than he swallowed. The chyle and organic fluids being mixed with it, but a conspicuously smaller increment of bile. A phial of the matters rejected was forwarded to Dr. R. for microscopic observation. He continues distressed in the bowels, which are very reluctant to act, and do not produce any natural stools, properly concocted. He takes the muriate of ammonia pills, but thinks they cause extreme uneasiness. Fel bovini ʒiv; Aquæ tepidae fʒj. M. Inject the bowel with a Davidson's syringe, inserting as much of the tube as possible. R.—Potassii iodid. ʒij; Aquæ ʒj; Tinc. nucis vomicae, Tinc. ext. monesiae, Vin. aloes, aa ʒj. M. A teaspoonful three times a day, in place of the cocculus, &c., directed on the 16th, and the quiniæ sulphat.

"30th. Had the pleasure of meeting Dr. Ruschenberger, who examined the case. He remarked that his complexion was much improved, and informed me that the egesta contained organic matter, nucleated cells, epithelial scales, and a few blood-globules. The patient seemed much more at his ease, having since the injection [ox-gall] passed more than a quart of dark feces, including scybalous mass, and afterwards about a pint of thinner

consistence without scybalæ, and having the natural colour and odour, the most satisfactory I have witnessed for some weeks. He has not vomited since Wednesday, and will probably have an improved digestion from this time. May take refined coffee once or twice a day.

"Nov. 1. Applied over the epigastrium emp. ammoniaci cum hydrargyri spread upon chamois skin.

"2d. Vomited again on Saturday. Had considerable pain during the night. Yesterday morning had a bilious dejection; sent for Dr. R., who advised him to take rest during the day, and abstain from medicines, excepting the pills of muriate of ammonia. The following night was spent very painfully, more so than common. He took prussic acid to the extent of sixty drops, and of tinct. gelseminum over an ounce, yet found no relief until about four this morning, when he passed a large bilious dejection. He then remained easy, and in the course of the forenoon had another, both well-conditioned, since which he has been easy but fatigued; and has taken coffee with milk and bread. One pill [opii gr. iss] was taken about two hours before relief came. This was the worst night he had seen. I waited on Dr. R., who suggested the probability of ulceration of a portion of the stomach, and the propriety of meeting it with argenti nitras. R.—Infus. sennæ ʒiiss; liq. morph. sulph. ʒij. M. To be given in case of a return of the colic. Foment with flannel wrung out of warm water and sprinkled with oil of turpentine half an ounce. He thought the elixir [potassi iodid. with tinc. nucis vomicæ tinc. &c.] added to his distress. I allowed him to continue it in half the quantity. I find, with every wish to use a limited number of remedies, the various turns of his disorder demand a great many pro tempore. Be more chary in the use of the prussic acid.

"4th. These two nights he has felt a good deal better, having more ease, rest, and sleep; but is growing costive again, and has the same pain in consequence: the bowels are tender, particularly on the left side, but are not very heated. Inject fel bovinum ʒij. Give peppermint water freely.

"6th. Aspect more animated, intellect clear; lies abed and examines public bills presented for approval and payment; says he lacks strength to stand up. Vomited on the 4th at least half a gallon of liquid of bilious hue and acid taste, mingled with food, seemingly equal in quantity to what had been eaten during some days past. Dejection from bowels in soft balls and masses. Says the plaster applied to the epigastrium on Sunday is comforting—that it removes the sense of sinking 'as if the stomach fell across the back-bone.' Asked that one of the same kind might be applied to the back [W. S. W. R.].

"Since the 4th inst. has had two copious dejections, and vomited more. Part of the time he has been very easy, but had severe pain in the bowels while I was present. I advised the fomentation with turpentine; and one dejection to be secured daily by means of the podophyllin pill and injection of fel bovinum. One of these injections was retained so long that it appeared to have acted on the gall-ducts and eliminated clear gall.

"9th. His disorder proves very refractory and discouraging. He has again twice vomited a large amount, about two pounds of sour, flocculent, impure chyme, and has had no further action of the intestines, even from the ox-gall injections. Dr. R. visited him yesterday, and ordered a tablespoonful of beef essence, with a teaspoonful of brandy, to be administered per anum every three or four hours. The first injection removed the sense of præcordial sinking. Two teaspoonfuls of cream, with one of lime-water, three or four times daily. Seltzer water, in small quantity, for

drink. Solution of morphia a drachm or two pro re natâ. By his advice prescribed to-day: R.—Argenti oxyd. gr. vj; Rhei pulv. gr. xxiv; Conii ext. gr. xviii. M. S. a. ft. mass et in pil. xxiv div. One every four hours. Other medicines to be suspended. His urine now gives him a little pain, but passes clear and well looking. He has much pain in the back above the reins, and from that sign, and the appearance of the matters vomited, I am persuaded there is disease in the pancreas, but the precise character of that disease is not very clearly intimated. His pulse is fuller and firmer than one would expect from his condition and abstinence, and may be sustained by a sub-inflammation of that organ. The pulse does not intermit. His tongue is bright and clean, which argues that there is less disease within the stomach than beyond it. Little masses of mucopurulent matter are every now and then spit up, I suppose from the bronchial glands, though he has at present no cough to speak of.

"11th. Has been easier since Monday; has not vomited; has taken a little nourishment, but remains costive, and is troubled with dysury. His pulse is now soft and nearly regular, as though relieved of some inflammation. He swallowed a little ice-cream and canary wine since dinner. Æther. nitric. spts. ʒj in a tablespoonful of water occasionally. Ol. ricini ʒj every day, or every second day.

"13th. Continues without vomiting, almost without medicine, pretty comfortable, and more hopeful. Did not take the ol. ricini, as he had a motion without it on Wednesday; it was pretty well concocted, and of natural colour. He speaks well of a mixture of lime-water and cream which Dr. R. ordered for him. It seems to soothe the stomach, neutralizing acid, and promote digestion.

"18th. Continues digesting slowly, with a soft pulse, varying from 70 to 80. No pain or vomiting. What pain arises is easily kept down by morphia. He is however much prostrated, and does not display much rallying force. Being anxious for an increase of strength, I advised a return to the use of the elixir (potassii iodid. with nucis vomicæ tinct. &c.), in half drachm doses, with the pills of oxide of silver, and a strengthening embrocation. R.—Tinct. sapo comp., tinct. gentian. simp., aa ʒij. M. Dr. R. recommended the oxide of silver to be increased to one-third of a grain."

[22d. Until the 8th instant Mr. K—— vomited daily, or on alternate days, but never passed over the third day without emesis. Very little nausea preceded the effort, but there was always an urgency to empty the stomach which would not tolerate delay. The quantity vomited was always large, suggesting that it was made up from the ingesta of two or three days accumulated in the stomach; it was yellowish, greenish, and of the consistence and appearance of pea soup. There was and is still a spot, about an inch in diameter, on the right side of the ensiform cartilage, which is tender, but there is no swelling perceived. Since the 8th he has not vomited; has been generally comfortable, with improved complexion and circulation. Very much emaciated. Mental condition sound; feels that he could eat "pork, spare rib, or almost anything else." Complains of some uneasiness of right shoulder, which he says has been rubbed with a bitter embrocation. Feels oppressed this morning, in consequence, he thinks, of eating rather freely of "white, hot-house grapes." Pulse 72, soft, regular, and of fair volume. No stool since Wednesday; enema fel bovinum.—W. S. W. R.]

"25th. Lies prostrate, and looks like a failing man. He could not continue the elixir (potassii iodid., &c.), and therefore replaced it with popu-

lin gr. x; Acacia pulv. ℥j. M. To take a grain or more three times a day in a little water. I recommended him to use the juice of sweet oranges, and to try a little champagne."

[27th. Mr. K.—vomited on the 22d about a quart of amber-coloured liquid of the consistence of pea soup. He attributes the colour to eating black Hamburg grapes. Since that day his stomach has been retentive of small quantities; but there have been pain and twitchings at the old spot. His chief nourishment is administered per rectum. Emaciation increases, and muscular power decreases. Last night he took, by direction of Dr. Teulon, a teaspoonful of tincture of gelsemium, instead of morphia. His pulse is 80, very small, and very soft. Intellect much less sprightly than usual. Has some difficulty of micturition.—W. S. W. R.]

"28th. Has taken the populin since Wednesday without any disagreement. He remains much the same, or a shade better. His friends have informed him of his danger, and expressed a wish to consult another physician. Dr. C. Ellis has been nominated. He has had a fair operation since my former visit. He complains much of dryness of the mouth. Infusion of asclepias tuberosum to drink when thirsty. Valerian ext. fl. ʒj to be taken once or twice after night."—W. F. T.

29th. Mr. K.—felt very much exhausted about 2 o'clock P. M. on Friday, in consequence of getting out of bed and sitting in a close-stool chair. Bowels were freely moved; evacuation normally moulded, of a bluish slate colour. There were much pain and flatulence. 3.30 P. M. Had taken five or six drachms of the solution of morphia; had no pain; voice husky; pulse 80, very small and weak; somnolent; dysury; voids small quantities of urine; general aspect indicative of great depression of the vital force. On Saturday he is reported to have passed a tolerably good night—a little dreamy. Beef essence administered per anum twice during the night. On Thanksgiving day drank about two ounces of champagne; and yesterday and last night some teaspoonfuls of gin with warm water and sugar. Voice husky; intellect clear; tongue clean, moist, pointed; thirsty; pulse 82. R.—Quiniæ sulphatis gr. xxiv; Acid. sulph. aromat. ℥xxx; Aq. dest. ʒiv. M. S. a. A half ounce with two ounces of beef essence every four hours per anum. He states to-day that he took more nourishment yesterday than he had on the three previous days. Pulse 86, very small. No pain; flatulent, thirsty; mouth feels dry and tongue thick, when he talks. There is a sense of slight weight in the stomach. A very deep inspiration causes no uneasiness. Urine passes abundantly. No movement of bowels since yesterday. Is moribund.

30th. Died tranquilly and almost imperceptibly at 1.35 P. M.

Dec. 1. Autopsy about 19 hours after death. No cadaveric rigidity; emaciation extreme. Abdomen only inspected. On exposing the viscera the intestines appeared in situ of normal colour, slightly distended with air. The omentum majus was contracted or corrugated into the epigastric region. Colon slightly injected, of rather darker colour than natural. Liver atrophied; not more than two-thirds of its natural dimensions; texture normal; colour of old mahogany. Gall-bladder distended; parts in its vicinity stained by bile. Spleen, kidneys, and mesentery were in no respect remarkable.

Having tied the œsophagus and intestine, the stomach with the pancreas, and two or three inches of the duodenum, were removed. A yellowish, pea-soup-like liquid poured out from the œsophagus when divided. The stomach contained about six ounces of the same description of yellowish

liquid. It was laid open along its greater curvature. A scirrhus hardening formed a band about three inches wide around the pyloric extremity of the organ. The parietes of the pylorus were about an inch thick; the opening not contracted. The walls of the duodenum were rather attenuated, and of a greenish hue. A mass, about a half inch in diameter, included in the thickness of the pyloric parietes, was softened; its cut surface was mottled with black and ochre-coloured matters. The mucous surface of the pyloric extremity of the organ was smooth, glazed, and of a pale ochre-yellow colour. The mucous surface of the cardiac end was injected, stellated, and arterioles were perceived ramifying over it; the general colour was deep red. There were several circular patches, about an eighth of an inch in diameter, of a grayish aspect, which suggested the idea of deposition upon the surface. The colour of the peritoneal coat was normal. Half way between the œsophagus and pylorus, an oval scirrhus mass, about one inch by three-quarters of an inch in its diameter, protruded from the lesser curvature internally, forming a slight elevation of the mucous coat. The pancreas were of scirrhus hardness.

*Summary.*—In this case disease manifested itself first, by dyspeptic symptoms, accompanied by palpitation of the heart to such an extent at times that the patient suspected the organ to be seriously affected. The treatment was begun, May 14, 1863, under an impression that the patient suffered from atonic dyspepsia. Pain passing from the stomach to the back was complained of for the first time July 29, or more than two months after admission to the sick list. On or about the first of June he removed for the summer to Newton, a few miles from Boston, but transacted business in the navy yard almost daily. On the 17th of August he placed himself under the professional guidance of Dr. W. F. Teulon, of that place. Soon after the employment of calomel and opium, a half grain of each every night, the cardiac symptoms ceased to annoy him.

On the first day of October he returned to his quarters in the navy yard, but remained under Dr. Teulon's direction.

Vomiting began October 5th, and recurred daily, or every second or third day. Blood was observed in the ejected matter October 18th.

A portion of the matters vomited on the 28th was filtered through paper; nucleated cells, a few blood-globules, and some epithelial substance were observed in the filtrate. Between the 8th and the 22d of November there was no vomiting.

He slowly and regularly emaciated, and lost muscular power from the beginning to the close. The epigastric region was frequently examined, but no indication of induration or tumour was detected.

His intellect was clear throughout the disease.

Dr. Teulon's prescriptions number 94; he must have used more than a hundred during his seven months' treatment. Was death accelerated or retarded by the various drugs and combination of drugs which he swallowed in obedience to the conjectures of his medical advisers? At what period were the symptoms due to organic change? Would he have lived without any other than anodyne treatment?