The other organs presented no unusual appearances.

Diagnosis. Acute general peritonitis. Fatty degeneration of kidney. Fatty infiltration of liver with cloudy swelling. Edema and hypostatic congestion of lungs. Wound of intestine.

A section through the tumor showed a coarsely reticulated structure of alternating fibrous bands, between which were opaque, yellowish, friable masses.

The microscopic examination showed that these last were composed of large epithelial cells, arranged in columns, and lying in small alveolar spaces. No true kidney tissue was found.

Diagnosis. Cancer of kidney.

CASES OF MELANCHOLIA.¹

BY GEORGE T. TUTTLE, M. D.

I AT first intended this paper to be a report of a case of melancholia with delusions, false sight, and false hearing that recovered while under the opium treatment, but its scope has been somewhat enlarged, and it is my purpose to briefly report or allude to several cases of melancholia where the medical treatment was opium, or a mixture of cannabis Indica and bromide of potassium or sodium.

It is well known that the presence of false sight and hearing for any length of time in a case of melancholia, indeed in any form of mental disease, warrants an unfavorable prognosis. The case I shall first report was of this character, and the chance of recovery was thought to be small.

E. C. H. was admitted to the McLean Asylum May 7, 1882; a man thirty-eight years of age; married; a merchant. No insanity in the family. He had usually been well except for occasional attacks of facial neuralgia that occurred at irregular intervals, of a few days or weeks, and lasted from half a day to two days. He was always of a nervous temperament, worried over little things. For a while he had been in charge of a branch house in another city, and had worked very hard; it is not possible to give any other as the exciting cause of his illness.

About the first of January (four months before admission) he began to appear nervous and irritable, and was unable to sleep well. He soon showed less capacity for business; then he had the idea that he had lost his place in the firm, and that his wife and children would suffer.

About the first of March he went to his home in an adjoining town, as he was totally unfit for work. He had grown worse. From worrying about business affairs he had taken another step and thought he had committed the unpardonable sin. Two weeks before admission he bought laudanum with the intention of suicide. On the morning of admission he was found with a rope and stone attached going towards a cistern, evidently intending to drown himself. Because of these attempts at suicide he was brought to the asylum. He was by no means demented, though the physician's certificate, under which he was committed, read, "A species of dementia, fatuity."

A physical examination revealed nothing abnormal. He showed much agitation and loss of self control, walking the floor, wringing his hands, and muttering.

¹ Read before the Boston Society for Medical Observation, December 3, 1883.

He answered questions readily, but repeated his answers several times as though in great distress and scarcely realizing what he was doing. He was given cannabis Indica, in the form of the tincture, one grain, and potassium bromide twenty grains, three times a day.

This agitation continued for several days, attended with loss of sleep, but he soon appeared in a way able to listen to reason, and it was almost possible to convince him that his ideas were wrong. On the 15th (eight days after admission) his wife, whom he left at home sick, and of whose recovery he had no hope, made him a call. This was of great benefit.

Under the cannabis and bromide, with plenty of food, rest, fresh air, and what diversion could be afforded, he improved rapidly, and began to read and take an interest in affairs. By the 23d of June he appeared so well that he was on that date allowed to spend the day at home, with a favorable result. The cannabis Indica and bromide had been gradually reduced till by this time he was taking only one fourth grain of the former and five grains of the latter.

At a subsequent visit, however, about the 6th or 7th of July, he became disturbed, and was not so well after returning to the asylum. Three days later he became much agitated, trembling because of fear; was afraid of those about him. The cannabis and bromide was resumed in full doses (one grain cannabis, twenty grains bromide).

At this time he revealed the delusion that there were various articles in the papers referring to him, and that people talked about him. This did not appear to have been false hearing. He had simply overheard the conversation of his associates and made what they said apply to himself, just as he did what he read in the papers.

About this time he did have unmistakable false hearing and illusions of sight.

He heard his father-in-law talk to him in the night, and the capitals of several Corinthian pillars which, on another building, he could see from his window, appeared to him to be grinning faces. When fully under the influence of the cannabis and bromide he became quite calm, though his depression was considerable and attended with the usual delusions of great wickedness and terrible punishment. He often said that while he was perfectly certain this was so, it was a wonder to him that he could go in the garden, smoke his cigar, and talk composedly with people. During the summer many things foretold his approaching doom: the reflection of the setting sun from the windows of the city was to him ominous; the locomotive bells tolled instead of ringing as they used to do; even the flowers in the garden reviled him.

In the fall he grew worse. He frequently heard the voice of his wife, which appeared to come from the sky, and often saw in his path a skull and crossbones which foretold his fate. He used to try to point this out to others, but no stretch of the imagination could detect any resemblance, for he usually saw some figure on the carpet or spot on the gravel walk.

As he did not appear to be gaining, and the cannabis and bromide merely kept him from a state of extreme agitation, and more especially as he began to complain that his gait was unsteady and that he had some difficulty in directing the movements of his hands, it was gradually changed during the latter part of November to deodorized tincture of opium, of which he

took twenty to twenty-five minims three times a day during December and January.

There was, however, no improvement in his mental condition. False sight and hearing continued; shadows on the curtains were to him living faces; the paper in his room had been selected with special reference to him, and the design represented many knives, which were a constant threat of death; and he at last had the idea that he was to be taken to Mount Auburn and buried alive or left in a tomb to starve.

He grew worse also in his physical condition; his appetite failed, and there was marked loss of flesh and strength, but it was decided notwithstanding to push the treatment more vigorously, and the 1st of February the deodorized tincture was changed to sulphate of morphia, and the dose rapidly increased from five eighths to three fourths of a grain, which he took from February to September, as it was enough to completely control his restlessness.

Under the larger doses of morphia his appetite improved and he slept better, without the moderate dose of chloral and bromide which he had sometimes taken, and the attacks of facial neuralgia became much less frequent.

He gradually dropped his ideas of wickedness and torture; there was no evidence of false hearing, and by the early summer he had begun to read the papers and books.

June 23d he went home for the day. After making several visits of a day, he stayed over one night; then a longer time. During these visits he appeared very happy, playing with his children, meeting his friends in a natural way, and took sufficient interest in his business and other affairs to occupy his attention. On the 19th of September he went away on a visit, not to return unless necessary. He had by this time given up all idea of having done wrong, and was only anxious to get back to his business and family.

He has since been seen and heard from several times, and the reports have always been favorable. He was discharged recovered after twenty months' illness.

Another case closely resembling this in its essential features was that of a woman (L. H.) forty-nine years of age, who was admitted July 22, 1882. Father and mother both committed suicide. She was one of nine children, none of whom except herself had been insane. Had had two previous attacks of melancholia, the first in 1853, the second in 1869. Present attack of six weeks' duration caused by anxiety and loss of sleep incident to the care of a sick relative.

The growth of her delusions was in this wise: Exhausted by watching, and over anxious, she at first feared she had not done her duty; then thought she *had* not; then that she was a sinner; then that the deaths in the family were a judgment upon her; and finally, that she was a murderess. She was suicidal.

In a general way the treatment till December was occasional doses of sedative medicines at night, and special attention to diet and the general conditions of health. But she grew worse; was apparently in the depths of despair; constantly moving about, talking, and showing great restlessness and agitation, which at times amounted almost to incoherence.

In a month from the time of admission she had the most marked false hearing. People made various accusations against her; she could hear vulgar talk and laughter and remarks against her character. In another month (by the middle of September) she was

still worse; thought she was an animal, and that repairs in process on an adjoining building were to construct her a pen. Appetite was pretty good, but she thought she ought not to eat because of her crimes. In consequence of this she would beg, cry, and struggle in a distressing and noisy way when the nurses attempted to give her food.

December 1st she was given deodorized tincture of opium, ten minims three times a day regularly, and by the 14th it had been increased to twenty minims. At this time she was in a more comfortable state of mind, sleeping well without sedatives at night, eating without trouble, and could occupy herself a part of the time with needle-work or some household duty.

During the latter part of January she was not as well for a time, but after an increase of the opium, February 1st, to thirty minims, she regained her balance, and continued to improve till the latter part of March, when, for a week or two, she was much more anxious and restless; but this gradually passed off, and by the 28th of June she was allowed to go home on trial, after a hospital residence of eleven months, and seven months after the beginning of the opium treatment. She now seems to be well.

Another case of the apparently successful use of opium was that of a man (H. W.) sixty-one years of age, a merchant, who was admitted January 15, 1883. First attack of a few weeks' duration. Exciting cause, failure in business. His mother and sister had been insane. He was of a nervous temperament, but usually well.

After his failure he appeared much depressed in mind, and soon restless, going without apparent object from place to place, showing a want of self-control by his conversation as well as actions, and, as he was found to be carrying a revolver and a razor, his friends thought it safer for him to come to the asylum, though he had made no attempt at suicide.

For a few days after entrance his restlessness and agitation were considerable. He would walk the floor with his hands to his head, saying, "Oh, dear! what have I done? what have I done?" While taking deodorized tincture of opium in the moderate dose of twenty minims three times a day, he regained his self-control, though his depression was not then the less. With careful attention to his general health he rapidly improved, and March 31st he went home in a very comfortable condition, after a hospital residence of two and one half months. As subsequent reports were favorable he was discharged, recovered.

The opium treatment has been given in six other cases of melancholia, to which I will briefly allude.

A man (D. W. F.), fifty-three years of age, had been depressed in mind for six months, and for two months had had delusions about his business affairs; that his family was coming to want, and, as they would freeze or starve, had better die at once. Was suicidal; no false sight or hearing.

For nine months he took ten to twenty minims of the deodorized tincture three times a day. Under the latter dose he became calmer, slept better, ate better, and gained in flesh and strength. He is now at home and well enough to be making plans for engaging in business.

A man (R. S. M.), sixty years of age, had been suffering from melancholia for six months previous to admission. His intelligence was good, but he lacked will-power, and after he finally came to a decision on

any question worried for fear he had made a mistake. He could not sit and read or talk, but walked the floor till tired enough to lie down, and when partially rested began his walk again. Slept poorly. He took twenty minims deodorized tincture three times a day for five months, and was then nearly as restless as at the beginning of the treatment, and his mental condition was not much improved. I must in fairness say, however, that he had gained a few pounds in weight, and that the opium at least did him no harm, and he held the slight improvement after stopping the treatment.

Another man (J. B. J.), fifty-two years of age, with delusions, false sight and hearing, a case of nine months' duration, in which no sort of treatment could have been applied with much hope of success, was given in a mild way meconate of morphia (one eighth to one fourth of a grain three times a day), for two months, during which time he steadily grew worse. The man is now no better, after an illness of three years.

A woman (T.), fifty-six years of age, second attack, of seven weeks' duration, was in great distress of mind, fearful of coming destruction, in constant motion, moaning and crying, at times beating her head against the wall and trying to choke herself with her hands. No evidence of false sight or hearing. She was given one fourth of a grain of meconate of morphia at bedtime for a month, and one sixth to one fourth of a grain three times a day for six weeks, but did not improve. A criticism applicable to this and the preceding case is that the dose was not large enough nor long enough continued.

Two women are now under treatment. Both are cases that one might expect to benefit with opium, as they show great agitation and distress of mind, walking the floor, crying and wringing their hands; insomnia and anorexia. One is now taking one grain of morphia sulphate three times a day, and the treatment has been pursued between two and three months, the dose having been gradually increased to the present amount. There is as yet little improvement.

The other case is complicated with false hearing and possibly sight. The treatment has been pursued nearly two months. She is now taking one and one quarter grains of morphia sulphate three times a day, and is no better.

Not considering the two cases now under treatment, of the seven cases reported three recovered; one was much improved; one was improved in a slight degree, and two grew worse. (In these two cases the treatment was not satisfactory, the dose was too small.)

It will be remembered that in the case first mentioned the treatment at the beginning was a mixture of cannabis Indica and bromide of potash, in the proportion of one grain of the cannabis to twenty grains of the bromide, as recommended by Dr. Clouston in his essay on Opium, Potassium Bromide, and Cannabis Indica.¹ It has been quite largely used at McLean Asylum, more particularly and with greater success in cases of maniacal excitement; but it has also been tried in a number of cases of melancholia, in several with benefit, and in one with marked success. This was the case of a man (W. F.), thirty-nine years of age, an architect, who was admitted January 28, 1882. A former attack of melancholia in 1864 lasted one year. Present attack, of six months' duration, was apparently caused by the death of his wife. He had the usual ideas of a man suffering from melancholia, and was suicidal.

¹ Brit. and For. Medico-Chir. Rev., Oct., 1870, and Jan., 1871.

He showed considerable restlessness and agitation, not extreme, to be sure, but he could not confine his attention to anything, and walked about aimlessly.

He was given three fourths of a grain of cannabis and fifteen grains of bromide three times a day (A. M., P. M., and before sleeping), which was increased July 4th to one grain cannabis and twenty grains bromide. He became more composed, and could take his part in a conversation to the amusement and instruction of others, for he was a very well-informed man, but would not admit that his depression of mind was less. By July 21st he was busy with his pencil and brush. With the usual care in regulating his daily life, he continued to do well, gaining in flesh and spirits, and the medicine was gradually reduced during September and October till he took one fourth grain cannabis and five grains bromide. He gradually grew worse; his old restlessness and depression returned in some degree; he looked haggard and was evidently losing flesh. November 4th the cannabis was increased to three fourths of a grain and the bromide to fifteen grains three times a day. He soon appeared better, and on the 18th it was reduced to one half grain cannabis and ten grains bromide.

From this time his progress was steady, and he left the asylum January 27, 1883, after a hospital residence of seven months. He was discharged recovered.

Another case was a woman (A. M.), fifty-five years of age. Of four sisters who had been insane one was at the time of admission an inmate of the McLean Asylum; one sister and a brother had committed suicide.

She was inclined to talk much of religion, her wickedness, and the certainty of a terrible punishment. She had delusions, such as that the nerves of her head were dead, broken, and dried up; that her feet and bowels were burning; that she was dying, and others of a like distressing nature. She was determined to commit suicide, and while undressing would often secrete a stocking, a garter, or a towel in the bed, and would shortly be found with it about her neck. Was often fed with the tube. She would be fed for several days or weeks, and then would eat for awhile, and again require feeding. She was very restless and constantly asking questions, frequently repeating the same one, more, apparently, from distress of mind than because of lack of comprehension. Her favorite remark was, "I've done wrong." It appeared to be a hopeless case so far as recovery was concerned, but for her comfort, November 1, 1880, the treatment by cannabis Indica and bromide of potassium was begun, and for four and a half months she took from one to one and a half grains of cannabis and twenty to thirty grains of bromide twice daily, as it appeared in a measure to quiet her.

During the month of December it was for a time omitted. She became more excited and deluded. Perhaps it could not fairly be claimed that her appetite improved under this treatment, but it is a fact that while taking the cannabis and bromide she was not once fed with the tube. She became so much more quiet that she was moved to a better ward. She was still much depressed, and both during this time and on many occasions afterwards attempted suicide. So far as recovery was concerned the use of cannabis and bromide was a failure. She was afterwards given opium in a mild way, the dose was too small to do any good, and she was finally transferred to a State Asylum, not improved.

Not to weary your patience, I will simply say that of seven other cases treated with cannabis and bromide, one woman in a state of great agitation, constant distress of mind, and extreme suicidal impulse, took from three fourths grain to one grain cannabis and fifteen to twenty grains bromide three times a day for three months with marked benefit. It was then thought best, from her appearance, to omit it for a while, and opium in moderate doses was substituted. This did not succeed. There was loss of appetite, in fact pretty constant nausea, with, of course, loss of flesh, and a change for the worse in mental condition. Cannabis and bromide were afterward resumed with the former good effect, and are still taken.

Another case, still an inmate of the asylum, thought she had committed the unpardonable sin; was fearful of future punishment, greatly agitated, and made foolish attempts at suicide. For four months she took one and one half grains cannabis and thirty grains bromide three times a day, and later one and one fourth grains cannabis and twenty-five grains bromide three times a day for two months, apparently with great benefit. Of two other women, one was discharged recovered, but not while taking the cannabis and bromide, nor because of it; and the other is not improved after having taken for two months one to one and one fourth grains cannabis and twenty to twenty-five grains bromide. One man left the asylum at the end of a month not improved, but this was not a fair trial either in time or dose. In the case of another man it was omitted after four months' trial, and opium substituted, with good results. A third man took it with doubtful benefit for four months.

Not considering the case still under treatment, of the above eight cases one recovered; the cannabis and bromide was of marked benefit in two cases; of doubtful benefit in two; and of no advantage in three (one not having been a fair trial).

The action of this combination seemed to have been mainly sedative, and the effect was to quiet restlessness and give general treatment a fair chance; indeed, if the patient merely becomes calm it is in itself a long step towards recovery. It is perhaps worthy of remark that though the cannabis and bromide were continued in many cases for long periods of time no depressing effects were observable. An increased appetite was noticed in some of the cases, while in others it would be difficult to say the appetite failed, for it could not well be less.

The indications for reducing the dose are symptoms rather of bromism. This occurred in several cases. A woman after taking one and one fourth grains cannabis and twenty-five grains bromide three times a day for six weeks became partially helpless, and had paralysis of the soft palate. From this she recovered in a week or ten days after stopping the medicine. This was the most marked instance, and, except for some slighter occurrences such as this, no bad effect was noticed. After the dose is reduced or omitted it takes several days to get over the effect, as might be expected, and it is as well a matter of a few days to get under its influence.

An objection to the tincture is that it is a bad looking and bad tasting dose, and I prefer a pill of the extract, which has been used to some extent. A solution of bromide containing considerable glycerine has been used, as this will for a day or two prevent a precipitation of the cannabis, which will occur if the

simple aqueous solution and tincture are given in one dose.

From a comparison of results in the two series of cases the balance is much in favor of opium, still the cannabis and bromide will do good in some cases, and may sometimes be used when opium cannot. It should therefore not be discarded as a form of medical treatment in melancholia.

Dr. Clouston's conclusion was that "fewer cases of simple melancholia were benefited by the bromide alone or along with Indian hemp than any other form of insanity. Some were made worse by them, but in one case of this disease, when there was great excitement and hallucination of hearing and suspected organic disease of the brain, the combination gave immediate and complete relief of all the symptoms for four months." This conclusion appears to have been based on the observation of five cases.

Opium may have some other action, but its main effect appeared to be sedative.

If there were no diminution in the restlessness and agitation of the patient I should doubt any great advantage from its use, and this leads me to say that while it is not possible to predict that a given case will be benefited, in a general way it may be said that the most favorable results are obtained in cases of restless melancholia. In some there is apparent intolerance of the drug; the appetite fails, the patient loses ground, and the treatment must be abandoned. It should, however, be borne in mind that a loss in appetite is not always an indication for stopping its use. The modern idea of the opium treatment of melancholia is somewhat like that in regard to its use in peritonitis as compared with the older method. In treating a given case the dose should be increased till the patient becomes calm, or dangerous symptoms appear. The agitation of a case of melancholia is an entirely different affair from the excitement of mania, in which the use of opium is not advised, and there is, so far as I can see, no danger, with careful watching, in gradually increasing the dose to almost any limit.

Many of the cases reported were severe, and the chances of recovery small; in such more vigorous treatment is warranted than in the ordinary cases of simple melancholia that do well with attention to the general conditions of health and little or no medication. I have seen a modification of the "rest treatment" used with success in several cases of this character. In conclusion, I would remark that it is often extremely difficult to say whether or not a given remedy has been beneficial, and much more so to ascribe to it a cure.

RECENT PROGRESS IN FORENSIC MEDICINE.

BY F. W. DRAPER, M. D.

CREMATION AND CRIME.

BROUARDEL, professor of legal medicine in the Medical Faculty of Paris, in a report made to the Council of Public Health, and adopted by that body in August last, makes the following among other observations concerning the relation of crime to the practice of cremation in times of epidemic invasion.¹ He declares his belief that societies and individuals who seek to promote this method of disposing of dead bodies

¹ Annales d'Hygiène publique et de Médecine légale, October, 1883, page 315.