

a new leaf; but the superficiality of such assertions is shown by the fact that the next moment she will gleefully relate some disreputable orgy in which she has had a part.

As to prognosis in moral insanity, it may be said that the only solution lies in a controlled environment. It must be kept in mind that the condition is due to inherent moral defectiveness and is incurable. The matter then becomes a question of such disposition of the patient as shall enable him to carry on his life at his maximum of happiness and usefulness. The solution of this question lies in controlling the environment. In cases in which the family can be made to see that the patient will always be unable to meet the demands and complexities of the life about him, that his liberties must be restricted; and when they have the means to command a simple and healthful environment for him away from the seductions and glitter of the city, it is then possible to place the patient in conditions that will enable him to maintain a fairly happy and somewhat useful life. It is not a difficult matter to maintain an appropriate environment for these persons if those in control understand their mental make-up; for these subjects readily adapt themselves to established conditions. Patient 1 is now living quietly on a farm, at some distance from the city, where he is under the constant supervision of a wise member of his family. He is happy, interested and entertained by the simple things about him. Here he shows no particular longing for a different kind of life; but in the several times when he has returned to his former environment he has immediately fallen a victim to the old lures. When it is not possible to command such fortunate conditions, the solution lies in the farm or custodial colony, where the unmoral individual, given proper occupation, will follow a happy and even useful life. When neither of these conditions is available, the insane asylum is the poor alternative. Patient 2 has been in a hospital for the insane for six months. With the exception of two or three episodes of minor insubordination, to which she was incited by discontented inmates (the constitutional unmoral is extremely suggestible), she has settled happily into the daily routine.

In differential diagnosis it must not be overlooked that mental aberrations other than moral insanity may present manifestations similar to those enumerated. I wish to call attention to such as are more commonly encountered.

In early dementia praecox the symptoms may at times closely resemble those of moral insanity. In the praecox cases, however, the onset dates more definitely from the age of puberty; but here too, there is often a long train of apparently immoral acts. The motives or mechanisms governing the anomalous conduct in the two conditions, however, are entirely different. In the dementia praecox there is mental conflict (an inability to choose between what seems to him good or bad, whether or not to act) which produces a paralysis of will that brings about the commonly seen cynicism, stolidity and stubbornness which, in reality, is the result of such rapidly changing motives as to render normal conduct impossible. In the mind of the unmoral, on the other hand, there is no real conflict. For his conduct there is but one motive—his desire for self-gratification.

Imbecility may present a syndrome similar to that of constitutional unmorality. But the defectiveness of the imbecile shows itself primarily and predominantly on the side of his intelligence. It may be detected by the Binet and other tests for mentality. The imbecile shows

characteristically, muscular and other bodily stigmata of degeneration.

In those atypical cases of epilepsy in which the outbreak manifests itself chiefly in the mental realm (the "psychic equivalent"), the abnormal conduct may be confused with that of the morally insane. In the case of the epileptic, however, the fact can be elicited that the strange or criminal acts have been performed automatically during a state of amnesia, or split-off consciousness. The epileptic is likely to be of an irritable, morose disposition.

A morbid mental condition may accompany certain ductless gland anomalies, among which perverted thyroidism is conspicuous. Such conditions are characterized by irritability, restlessness and marked suggestibility. The conduct determined by such states is at times erroneously taken for that resulting from moral insanity.

We must not, finally, put the label of moral insanity on the inherently normal individual whose upbringing in an environment of poverty and vice has directed his conduct into the same channels as those spontaneously followed by the constitutional unmoral.

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LODGMET OF A COCKLE-BURR IN THE VESTIBULE OF THE LARYNX

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Dec. 10, 1911, J. S., aged 10, while playing, entered into competition in tossing up and catching cockle-burrs in the mouth. He proved to be very adept, but one large prickly burr pricked his tongue, which caused a quick inhalation, thus drawing the burr into his larynx. He immediately experienced suffocation, aphonia and some pain. His family physician was called, and found the burr beyond the reach of ordinary measures.

When I saw the boy, about eight hours after the accident, the suffocation had somewhat increased. The patient was slightly cyanotic, his pulse weak, and it was scarcely possible for him to make a sound. The pain at this time was slight. He showed all signs of collapse. I tried to make an indirect laryngoscopic examination, but it was impossible, so we made preparations to do a tracheoscopic examination, preparation also having been made for removal after tracheotomy, which seemed almost unavoidable at this time. The patient was given ether anesthesia, and was placed in the recumbent position, with the head held in partial suspension over the end of the table. Suspecting that the burr was lodged in the upper larynx, I used the autoscopic spatula with the Brunings-Kahlar pan electroscope. I found the burr lodged crosswise in the ventricle of the larynx. It was difficult to establish the landmarks, as there was considerable swelling of the false cords, the burr being covered with blood and mucus and filling almost the entire ventricle. The spines and tentacles were partially imbedded in the mucous membrane, because of the spasm of the muscles and swelling. The only aeration afforded was the air that could pass around the burr through the spines, and that was very limited. Finding it in this position and condition, and fearing that trauma might be caused by the removal of it in that position, I endeavored to turn it so that the long axis of the burr would be in the long axis of the larynx. After this, to grasp it with forceps and remove it was a simple matter. The greatest disadvantage under which I was working was the great amount of secretion which is always present when profound anesthesia is used in bronchoscopy; but using the Brunings-Kahlar pan electroscope overcame this, because the light is reflected light and the secretion has no effect on it.

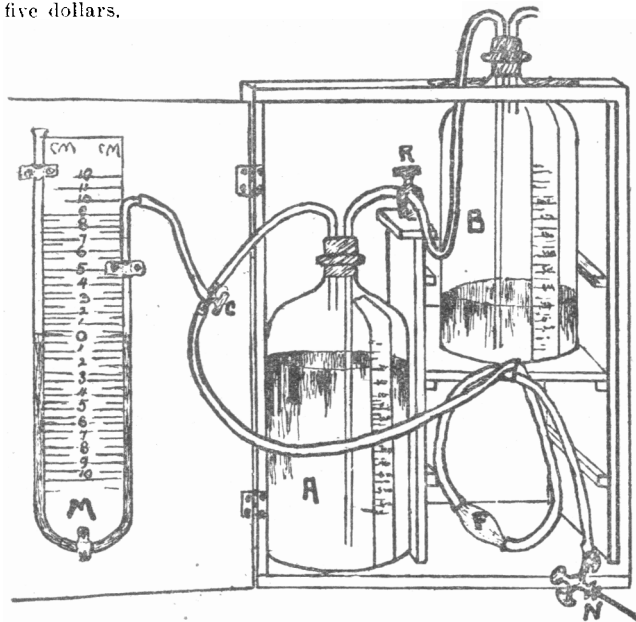
After the burr had been removed and the narcosis had passed off, the patient was placed in the Fowler position and

cold compresses applied to the throat. He experienced no discomfort in respiration, and no further trouble. The compresses were taken off on the third day and the patient took semisolid food without difficulty or pain, and on the third day when he was allowed to try to use his vocal cords he could speak in a moderately audible voice. He was allowed to go home on the fourth day; his voice returned gradually and was about normal on the fourteenth day. The family physician reported later that the patient made an uneventful recovery.

APPARATUS FOR PRODUCING ARTIFICIAL PNEUMOTHORAX

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Artificial pneumothorax has been so universally accepted as a therapeutic measure in certain selected cases of pulmonary tuberculosis that the following description of a simple modification of the Floyd-Robinson apparatus as used by us may be useful. It has the great advantage that it can be made by any practitioner who has facilities for bending glass: without the needles the whole apparatus should not cost over five dollars.



Apparatus for producing artificial pneumothorax: A and B, two 80-ounce bottles; R, ordinary stop-cock; C, three-way stop-cock; M, manometer; F, filter; N, needle.

It consists of two 80-ounce bottles A and B, with pierced rubber corks. These bottles are graduated into spaces of 50 c.c. on a strip of adhesive pasted on them. The graduation must be done by measuring 50 c.c. in a graduate for each space. The bottles are connected by a syphon consisting of a glass tube going to within an inch of the bottom of each bottle and connected by rubber tubing. A stop-cock, R, is inserted into the rubber tubing between the bottles.

Bottle A, which is charged with nitrogen gas, in a manner to be described, is connected by rubber tubing with the needle, N, which is inserted into the chest. The water manometer, M, which is most important, is connected with the needle by a three-way stop-cock at C. This three-way stop-cock by a half turn can be connected either with the manometer or with the nitrogen bottle, A. The manometer is graduated in centimeters and fastened to the door of the apparatus by brass-clips. At F is a glass filter made by drawing out an ordinary test-tube so that rubber tubing can be slipped over the ends. It is filled with sterile cotton and serves to filter out any foreign particles or droplets that might be carried into the rubber tubing by the gas. The needle used is the Floyd-Robinson type as described by them (Robinson, Samuel,

and Floyd, Cleveland: Artificial Pneumothorax as a Treatment of Pulmonary Tuberculosis, *Arch. Int. Med.*, April, 1912, p. 452).

To charge Bottle A with nitrogen a cylinder of compressed gas may be used, or it may be charged more cheaply and quite as satisfactorily by abstracting the oxygen from the air by a solution of pyrogallol and potassium hydroxid.

The formula which we have used is as follows: Six gm. of pyrogallol powder are placed in the graduated bottle, A, which is then filled to the 450 c.c. mark with warm water and to the 500 c.c. mark with 15 per cent. potassium hydroxid solution. The bottle is corked tightly, shaken and set aside for three hours, at the end of which time practically all the oxygen will be abstracted from air within the bottle. The quantity absorbed can be measured by the amount of fluid that syphons over from Bottle B.

To operate the apparatus Bottle B is filled with water or pyrogallol solution. To force nitrogen through the needle the stop-cock between the bottles and also the three-way cock at C are opened. Fluid from B as it gradually syphons into A will force nitrogen gas through the tubing to needle. As the fluid falls in B the pressure can be maintained by raising the bottle on the movable shelf. The amount displaced can be read easily on either scale, and the flow of gas can be stopped by turning either stop-cock.

When the needle is inserted in the chest the stop-cock, C, is turned so as to connect the needle with the water manometer. During the operation the fluctuation and pressure in the manometer can be observed by simply turning the three-way cock, C. This closes off the gas and connects the needle with the manometer instantly. This we consider a simple but important improvement on any other apparatus which we have seen described.

The technic of the operation has been so carefully described by numerous writers that it is not necessary to detail it here. (An extended bibliography was given in *THE JOURNAL*, Dec. 27, 1913, p. 2313.) The point which all emphasize is the importance of getting negative fluctuations in the manometer before starting to inject any gas, and observing the effect of the injection of gas on the fluctuations in the manometer. By turning the three-way stop-cock C this can be seen instantly at any stage of the operation. If it is considered necessary to warm the gas before injection, a copper coil can be inserted into the rubber tubing and placed in a basin of warm water.

We have given over forty injections with this apparatus and find that it works admirably.

The box can be made by any carpenter. The following articles are necessary:

- Two 80-ounce bottles with perforated rubber corks.
- One yard of stethoscope rubber tubing.
- Adhesive.
- One 30-c.c. test-tube to make filter.
- One hard rubber stop-cock from ordinary fountain syringe.
- One three-way stop-cock; this costs less than one dollar at any instrument dealer's.
- One length of $\frac{3}{8}$ -inch glass tubing.
- One length $\frac{1}{4}$ -inch glass tubing.
- One Floyd-Robinson needle.

WALL OF THE STOMACH PERFORATED BY A PENCIL

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Patient.—Mrs. F. A. was admitted to the Georgia State Sanitarium Jan. 18, 1900, with diagnosis of dementia praecox. No suicidal attempts were noted, but one of the older nurses informed me that some years ago, patient swallowed a thimble, which was recovered in the feces following a purge with castor oil.

Present Illness.—Patient was first seen at 11 a. m., Nov. 18, 1913. Temperature 101½ F.; pulse 95. She complained of intense abdominal pain and only reported her condition to the nurse when the pain became so severe that she could no longer stand it. The pain was so exquisite and the abdomen so rigid that nothing could be ascertained from palpation. She was immediately transferred to the surgical ward. A blood-count revealed the presence of 25,000 leukocytes.