

This pan (Fig. 1) is two-thirds round or oval while one-third has a flat back surface which permits the pan to be placed squarely against the lower rods of the table (Fig. 2), thus preventing it from moving from its original place.

1525 Calliope Street.

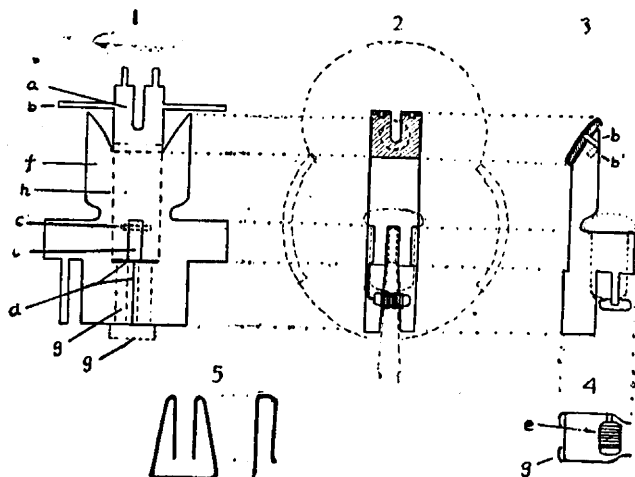
SIMPLE ELECTRIC ATTACHMENT FOR OPHTHALMOSCOPE

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The electric ophthalmoscope is very much more convenient than the ordinary type—especially when the patient is in bed—but the cost is excessive in comparison with the convenience, from the point of view of the average physician. I have devised a very simple attachment for the usual form of instrument, which can easily be made for less than a dollar.

The necessary materials are a piece of sheet brass as thick as a postcard, and about 6 inches square to allow for errors; a small electric light of the sort used in the familiar hand flash-light, together with its battery; a small mirror, and 3 feet of double flexible electric-wire cord.

The tools required are the following: A pair of old shears; a small pair of pliers with quite narrow flat nose, and either a very thin small flat file or, much better, the use for half



Electric attachment for ophthalmoscope.

an hour of a dentist's engine, equipped with a narrow carburendum wheel.

The diagrams give the plan in detail. The sheet of brass (Fig. 1) is cut along the solid lines and bent along the dotted lines, as shown in the other figures. The exact measurements and proportions vary with the individual ophthalmoscope and mirror used. The mirror-back is shown at *a*; *b* indicates the stay-pieces that hold *a* firmly against the free diagonal ends of the sides *f*, the mirror itself intervening; the ends of the strips *b* are either soldered to the sides *f*, leaving room to slip in the mirror, or simply bent tightly over the edges of the sides, as shown in dotted lines at *b'* (Fig. 3); *c* represents a slot that fits over the lower bearing of the original mirror of the ophthalmoscope (the position and character of this vary with the instrument); the original mirror, incidentally, will have to be removed; *d* shows a T cut that enables pieces at *g* to be bent as shown, from the rear, in Figure 4; at *e* (Fig. 4) is shown the insulated contact for the pole of the electric lamp; it is simply a piece of rubber, impaled on a little strip of brass as pictured in the several figures, and wound with bare copper wire; the position of the light and the ophthalmoscope itself are indicated by dotted lines in Figures 3 and 4. Finally, Figure 5 gives the shape of a spring clip made of steel or spring-brass wire, which engages by its free ends in grooves *g* and holds the attachment firmly to the instrument.

The little mirror should be about three-eighths inch square, and has a slot one-sixteenth inch wide extending to its center; it is fashioned from a five-cent hand mirror, or, perhaps better, from a watch-glass, silvered to make a concave mirror. Any good text-book of chemistry will give the solutions used. The back of the mirror should be coated with shellac, after shaping, to prevent the silver from loosening. The cutting is done with a file if necessary, but a much smoother and easier result is attained with a dentist's engine.

The two wires in the double cord are fastened, respectively, to the contact *e* and to some part of the body of the attachment itself. This may be done with solder, or by simply snipping up a little strip from the attachment with scissors and then firmly bending it round a loop in a piece of plain copper wire, the end of which is in turn wound round one of the flexible wires of the cord. The other end of the cord, of course, goes to the battery. Care should be taken that the circuit is complete only when the electric light is in position.

The bulb of the light itself is painted black except for a triangular area, equilateral, with apex at center of bulb and base near circumference. It is preferably silvered first, perhaps, to get the benefit of reflected light within the bulb.

The instrument as described gives a very satisfactory view of the fundus; and when painted dull black it is also neat in appearance, a point perhaps worth mentioning.

For the newer style of ophthalmoscope, the following changes are made: The slot *c* is modified by leaving the hinder end of the little flap attached, the flap then being bent up to form an additional point of support for the lamp. An additional slot *c'* is added to fit over the lower bearing of the original mirror (the mirror must be removed by gently prying up one end). The T-shaped cut *d* is omitted, and the main line of bending, *h*, is continued back to the end, thus omitting flaps *g*. A little extra flap *g'* is utilized to elevate slightly the hinder end of the attachment and bring it parallel with the ophthalmoscope by turning it under the hinder end as a point of support.

REPORT OF A CASE OF HEMATOSPERMIA DUE TO HIGH BLOOD-PRESSURE, ASSOCIATED WITH CHRONIC INTERSTITIAL NEPHRITIS

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History.—G. L., American merchant, aged 37, married, a non-user of tobacco or liquor, presented himself for treatment, April 16, 1910. The patient was "feeling in the best of health," but had noticed on several occasions that the penis was covered with blood after intercourse. At first this condition occurred at intervals of one week or more. The condition gradually grew worse and blood was observed after every act of coition. On several occasions, on awaking in the morning, he found his nightgown soiled with blood and semen. This was not accompanied by erotic dreams. The patient's father died at the age of 50, cause unknown. His mother died at 63 of heart-disease. His brother died of pulmonary tuberculosis. The patient had gonorrhea on two occasions, the last attack in 1905. He then weighed 216 pounds. He developed a slight but obstinate cough and lost 20 pounds in three months. He had night sweats and felt weak. On several occasions he suffered from hemoptysis. Tubercle bacilli were demonstrated in the sputum. The patient was advised to live in southern California. He was put on a hygienic regimen and after a period of one year made a complete recovery. His weight and strength were regained, the cough disappeared and no tubercle bacilli were found in the sputum. No lung symptoms have since appeared.

Physical Examination.—Patient was well nourished and well developed, height 6 feet 1 inch, weight 216 pounds. Color, pasty pale, mucous membranes normal in appearance, breath bad, teeth excellent, tonsils hyperemic and enlarged. Lymphatic system negative. Heart normal in size; faintly audible systolic murmur heard at mitral area. Apex-beat not visible. Arteries negative. Blood-pressure 210 mm. mercury. Lungs: slight dulness at right apex, with prolonged expiratory sound.

(general condition precludes active process). Liver dulness normal, spleen not palpable. Abdomen tympanitic. Sleep and appetite excellent. Nervous system negative. Urethra and bladder of normal appearance on endoscopic and cystoscopic examinations. Prostate gland found normal on palpation. Seminal vesicles not palpable.

Laboratory Findings.—Blood: hemoglobin 90; erythrocytes 4,800,000; leukocytes 10,000; differential count normal. Urine: 2,375 c.c. voided in twenty-four hours; color, pale amber; reaction neutral; specific gravity, 1.010; albumin, 0.2 per cent.; indican present. A few granular and waxy casts, and a few erythrocytes and kidney cells show in sediment. Prostatic fluid normal. Semen, reddish-brown fluid; unstained specimen shows many motile spermatozoa. No tubercle bacilli seen in three specimens; no gonococci. Semen gave definite blue color with Obermeyer's reagent and chloroform, showing presence of indican.

Differential Diagnosis.—Urinary findings with high blood-pressure made the diagnosis of chronic interstitial nephritis obvious. The blood seen after coition came from some part of the genito-urinary tract. Kidney, bladder and urethra were eliminated as no blood was observed in the urine and none appeared after micturition. This was further confirmed by endoscopic and cystoscopic examinations. The time of occurrence distinctly showed the lesion to exist in the seminal vesicles or ejaculatory ducts. Neoplasms, tuberculosis, gonococcal infection, concretions, acute vesiculitis, syphilis or essential hemorrhage might be responsible for the hematospermia. Neoplasms were eliminated, as no growth was palpable (no manifestations have since developed). Tubercle bacilli were not evident on microscopic examination and injection of semen into a guinea-pig proved negative; no nodules on palpation. Gonococcal infection was ruled out by negative microscopic examination. Concretions were not probable in the absence of colic, aspermia, sexual irritability or evidence on palpation. Acute vesiculitis was ruled out by absence of inflammatory manifestations. A negative Wassermann test excluded syphilis. The high blood-pressure of 210 mm. Hg, associated with the chronic interstitial nephritis, was then assumed to be the causative factor, as confirmed therapeutically.

Treatment and Result.—Diet was modified, and 150 gm. meat allowed daily, but no cabbage, beans, sprouts or any food tending to produce tympanites was permitted. A light evening meal was allowed. As the patient had been wearing very light athletic underwear (sleeveless and half pants), light wool, full length was substituted. Cold baths had previously been taken daily; these were absolutely interdicted and the patient was directed to take warm baths at bedtime several times weekly. Fluids were limited to 1,500 c.c. daily, and a moderate amount of exercise was ordered. Artificial effervescent Carlsbad salt, 2 drams in a cup of hot water, was ordered to be sipped slowly every morning fifteen minutes before breakfast. To reduce the blood-pressure sodium nitrite, in $2\frac{1}{2}$ -grain doses, was given three times daily.

The condition of the semen showed a marked improvement a few days after treatment was instituted; the bright red color of the blood gave way to a faint discoloration which gradually disappeared at the end of two weeks when no trace could be observed either macroscopically or microscopically. At this time, the administration of sodium nitrite was stopped as the blood-pressure was reduced to 160 mm. Hg. Carlsbad salt was continued with modified diet and hygienic directions. The urine was examined twice monthly. Each succeeding examination showed marked diminution in the number of casts. At the last few examinations no casts have been visible, and albumin has remained at 0.05 per cent. Indicanuria is absent. On two occasions in the past three years a slight trace of blood has been seen in the semen. Each time the blood-pressure registered over 200 mm. Hg and the condition yielded to agents directed to reduce the pressure.

CONCLUSIONS

Possibly many cases of so-called essential hematospermia could be traced to high blood-pressure or underlying patho-

logic conditions. The presence of indicanuria, tympanites and obnoxious breath in this case demonstrating intestinal fermentation, the subsequent correction of which was followed by improvement in the blood-pressure and urinary findings, serves to emphasize a probable connection between the intestinal toxemia and chronic nephritis.

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INFANT DISEMBOWELED AT BIRTH—APPENDECTOMY SUCCESSFUL

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I was called to attend Senora Y. A., a Mexican woman, in confinement, March 14. I found that the head of the infant was already free, and with the next pain, a moment later, the trunk was expelled. I was astonished at finding that the whole intestine, both small and large, was outside the abdominal cavity. Examination showed that the bowels had passed along inside the cord for about two inches, at which point the walls of the cord had ruptured, allowing the bowels to escape laterally.

No preparations for the confinement had been made; the bed was filthily dirty and the mass of intestines was thickly sprinkled with bits of straw, feathers, crumbs of food and fecal matter from the mother.

I had left the bedside of a woman just about to be delivered, in order to respond to this call. I hurriedly ligated the cord, delivered the placenta, and, wrapping the baby in the cleanest thing I could find, returned to the patient I had left.

Finishing this case I called my colleague, Dr. T. B. Smith, and we went together to see the disemboweled infant and took it at once to the Arizona Copper Company's Hospital. It was placed on the operating table two hours after birth. By this time the bowels were matted together with fibrinous adhesions which included many of the particles of debris mentioned above. They were cleansed gently with sponges and warm salt-solution, but this cleansing was not very thorough, of course. The appendix, three-fourths of an inch long, seemed to be contused and swollen and a catgut ligature was thrown around its base and it was then removed. The umbilical opening admitted the tips of two fingers. It was enlarged for half an inch upward and downward and the cord-bearing edges were trimmed off. The intestines were then replaced and a hurried closure was made with one layer of buried catgut and one of silkworm-gut.

The child made an uneventful recovery, save for one small stitch-abscess, and is at this date well and growing normally.

The Body as a Chemical Laboratory.—The body is a great chemical laboratory which is constantly dealing with a variety of chemical compounds, and the processes are of such a complex and unique nature as to baffle largely the most refined methods of organic chemistry employed for their detection. The proteins, the carbohydrates, fats, etc., have to undergo many changes in the course of their amalgamation with the tissues of the body. They are ultimately subjected to regressive processes, and are eliminated from the body in the form of relatively simple compounds, such as carbonic acid, urea and uric acid. This long physiologic metamorphosis, with its intermediate products, is at present only known to us in part, and still less can we speak definitely of many pathologic phases of metabolism, which lead to sundry forms of auto-intoxication. At any rate the chain of events may result in the production not only of useful and indifferent, but also of injurious and toxic bodies; while any check to the normal processes of elimination may lead to an accumulation in the system of normal waste products and a consequent intoxication. Carbon dioxide, urea and bile may respectively lead to asphyxia, uremia and cholemia; and in the diabetic coma we have a classical example of an auto-intoxication.—Allan Macfadyen, in *Clin. Jour.*