gently draws it out through the incision just far enough to enable an assistant to make a vertical snip of the iris with iris scissors, close to the tip of the forceps. The ideal operation, however, is without iridectomy.

F. The iridectomy having been done—or if the iridectomy is not to be done—the operator, still continuing to fix the eye with his grasp of the tendon, takes in his other hand the cataract-in-capsule detachor and, passing it into the anterior chamber, he directs the free point of the horizontal curve between the iris and anterior capsule, pressing it gently downward until both the horizontal and vertical curves are behind the iris, or between the iris and the cataract; and now the detachor is to be so held that the horizontal curve shall rest on the lens below, but parallel with, the horizontal meridian of the lens, while the vertical curve shall rest on the lens to the outer side of, but parallel with, the vertical meridian of the lens, half way between the center and the margin. This is the primary position of the detachor.

On two movements of the detachor depends the success of the operation:

1. The vertical curve is made to press against the lens in such a way as to rotate it on its vertical axis, causing the outer margin of the cataract to move backward while the inner margin is made to advance to the same extent. The effect of this movement of the detachor is to tear loose the ligament laterally, the tear including much more than two quadrants, leaving untorn, probably, only a few fibers directly above and below. Now the instrument must be returned to the primary position, thus replacing the cataract in its normal position.

2. The horizontal curve of the detachor must now be made to rotate the cataract on its transverse axis by advancing the free end of the instrument while making *gentle* pressure against the cataract below its center. The effect is to make the lower margin of the cataract recede while the upper margin advances accordingly. This motion tears loose the few remaining fibers of the ligament, above and below, making easy the next step.

3. The cataract in its capsule having been torn loose by the two movements of the detachor outlined in 1 and 2 above, this instrument should be withdrawn from the eye, and the cataract in the capsule should be delivered by external pressure, in the old-time way, often without any counter-pressure, the globe still being held by means of the tendon-grasp. Occasionally light external pressure will show that some of the ligaments remain intact, as in one of my eight cases. In such a case the fixation forceps should be laid aside that the left hand may make counter-pressure with the shank of the cystotome until the cataract in the capsule presents in the corneal incision. At this moment the counter-pressure should cease and the presenting cataract should be transfixured from behind with the point of the cystotome, by means of which the cataract may be lifted out, thus minimizing the amount of further external pressure on the lower part of the cornea.

By this method of continued fixation, detaching and delivering, the operation is simple, easy and safe, and the trauma is very slight. Subsequent irritation was practically nil in all of my eight cases.

This operation has been done twice by Dr. M. M. Cui-lum, one of my local confreres. After his first operation he turned to me and said: "Why, this operation is as easy as the old-time operation." After his second operation he telephoned me as follows: "Your operation beats the Smith operation a long way."

The after-treatment is the simplest, varying from the usual in that I leave the eye open behind a gauze flap after the second day.

What is new in this operation can be recognized easily by the reader, but I will summarize the points: (1) Method of fixation; (2) the detachor and the method of using it; (3) the transfixing of the lens from behind in cases requiring much external pressure.

The free use of pigs' eyes will give courage and confidence to the one about to adopt my operation.

137 Eighth Avenue North.

COMPLEMENT FIXATION WITH LECITHIN AS ANTIGEN IN PELLAGRA

A PRELIMINARY NOTE

C. C. BASS, M.D.
NEW ORLEANS

The original Wassermann reaction and its many modifications, though at first thought to be specific for syphilis, has been found in a number of other diseases that are all known, or thought, to be of protozoan origin. The reaction seems, then, to be limited to protozoan diseases with the exception of a few cases of advanced tuberculosis and leprosy.

The generally accepted theory of the etiology of pellagra the world over is that it is poisoning from eating improperly cured or diseased corn products. Lombroso extracted from spoiled corn an oil and other extractives with which he produced experimentally in animals a disease very similar to, or identical with, pellagra. In Italy, where there is much pellagra, the authorities have reduced the amount of the disease to less than one-fourth of what it was when the regulation against the use of diseased corn was begun. The work has been based on the maize theory. It should be remarked incidentally, however, that many of the cases have been isolated by providing a number of hospitals for the treatment of pellagra.

There are a few students, however, among whom may be mentioned Sir Patrick Manson, who dispute the maize theory, and believe the disease to be due to protozoa and cite as evidence the similarity of course, symptoms and pathology of the disease to syphilis and sleeping sickness.

In the research laboratory of Tulane Medical College we have so far tested the serum in six cases and all gave positive reactions. The technic followed was the original Wassermann, except that lecithin was used for antigen instead of syphilitic liver extract. The hemolytic system used was sheep corpuscles; serum of sensitized rabbits inactivated at 56° C for 30 minutes; and guinea-pig serum for complement. The patient's serum was inactivated before being tested. All six cases gave strong positive reactions. All the patients gave negative histories for syphilis; three were the mothers and one was the father of healthy children. One of the tests was made on blood taken twenty-four hours after death and is, therefore, not very reliable. One patient denied eating corn meal, though the diagnosis of pellagra appeared fully justified.

I fully recognize that these few positive Wassermann reactions in pellagra may be merely a coincidence and do not justify any conclusions, but if the observation is confirmed in a larger series it would tend to strengthen the idea that the disease may be of protozoan origin. It might also be of service in the diagnosis of the very many early or mild cases.

Still further, it would add another disease to the list for consideration in interpreting a positive Wassermann reaction.

741 Carondelet Street.

Mental and Physical Education.—The whole conception of the purpose and curriculum of a college education needs revision and into it must come a better relation of the physical with the mental life of the undergraduates. This characteristic feature of our educational system should furnish quiet years for thought and visions but it should, and that was the purpose of many of those who endowed them, make distinctly for efficient citizenship.—P. C. Phillips, in *Hygiene and Physical Education*.