may get more thorough treatment than the left eye, even from him. In a room a baby is always left lying in its crib in the same position, picked up in the same manner, and the mother or nurse is likely to begin always with the same eye in the treatment, to the detriment of the other eye.

The remedy is, obviously, to instruct the woman to begin carefully with the right eye, for instance, at one treatment and the left eye at the next treatment. When an ulcer is present on one eye she should favor that eye by beginning with it.

In opening a baby's eyes a woman is likely to place the end of her finger too far from the lid margin, or to try to open the lids while they are wet and slippery externally; or a second woman attempts to help, and stretches the lids more tightly shut by keeping too far from the edge.

What is said here of ophthalmia neonatorum holds true also, of course, for infectious ophthalmias in all children up to an age when the two eyes can readily be opened equally.

2228 South Broad Street.

A SIMPLE METHOD FOR REMARKING THE SQUARES IN THE COUNTING-CHAMBER OF A ZEISS HEMATOCYTOMETER.

PATRICK MOLONEY, L.R.C.P., L.R.C.S.
CAPE COLONY, SOUTH AFRICA

The inexperienced blood counter sometimes has difficulty in cleaning the slide and counting-chamber of the Zeiss hematocytometer and often resorts to the use of alcohol and ether with disastrous results. These agents remove the color from the demarcating lines of the various squares and the instrument is rendered useless. Some laboratory authorities have not been able to suggest anything better than rubbing the cell with a soft lead pencil and polishing with a soft linen cloth, or they advise the return of the slide to the maker for the purpose of remarking. Having noticed that the glass beads in the mixing-chamber had a strong affinity for Tolson's fluid,¹ I determined to rub a piece of gauze moistened in this solution gently over the counting-chamber. The result was excellent, the boundaries of the squares being clearly defined, and, moreover, they retain the stain far better than that given by the application of the lead pencil.

A SIMPLE METHOD OF BLOOD TRANSFUSION WITHOUT CANULA

JOHN A. HARTWELL, M.D.

Attending Surgeon to Bellevue Hospital, Assistant Surgeon to Presbyterian Hospital, Consulting Surgeon to Lincoln Hospital
NEW YORK

The operation of direct transfusion of blood has, through the work of Carrel, Crile and others, assumed the importance of a valuable therapeutic agent during recent years. Its general applicability has, however, been considerably restricted owing to its difficult tech-

nic. The suture of the vessels requires a marked degree of skill, and even in the hands of men more or less experienced in doing it often fails to give a free flow of blood. The use of the canula, while not quite so difficult, is still an operation that will frequently fail in the hands of any surgeon who has not had an extensive experience in using it in animals. It has the further disadvantage of very materially lessening the caliber of the vessel where it is cuffed back over the canula. The procedure described below is almost as simple as a saline intravenous infusion and delivers into the vein a full flow of blood, which, however, can be easily controlled if it be too great.

The artery and vein are dissected out, temporarily clamped and divided in the usual manner and with the usual care in securing the small branches. The adventitia is removed from each, but a small coil of it is left curled up on the outside of the artery about one and a half inches from the cut proximal end. Three guiding sutures of fine silk are then passed by means of a fine needle—an ordinary intestinal needle and zero silk are sufficiently fine—at intervals of 120 degrees in the circumference of the cut end of the vein. The end of the artery is greased with melted, sterilized petrolatum. The mouth of the vein is drawn open with the sutures and the artery passed directly into it for a distance of one inch. One of the guiding sutures is then passed through the rolled-up adventitia on the artery to hold the two vessels in contact, and the greater or less amount of surplus circumference of the vein is clamped or sutured so as simply to approximate the artery but not to constrict it. The obstructing clamps are removed and the blood current allowed to flow. This procedure has been tried with entire success on dogs in the Cornell Physiological Laboratory, and there is no tendency whatever to clotting of the blood. It has been used but once on the human subject (in a case of severe anemia which I saw with Dr. Freeman of Orange, N. J.), and was in that case equally successful. In this instance a small tributary vein was dissected up for an inch and left attached to the receiving vein about one inch from the anastomosis in order to determine the actual flow through the latter. When the vein proximal to this tributary was compressed and the small clamp removed from the latter a full-sized flow of blood would be thrown through it in arterial pulsations for a distance of two or three feet. Digital pressure on the artery controlled accurately the rapidity of the flow. In this way it was possible to continue the flow for fifty minutes before the donor began to show sufficient loss of blood to indicate the necessity of stopping it. No diminution of the stream took place at the end of that time except such as was incident to the following blood pressure. There was no back leakage around the artery. After about fifteen minutes the two vessels had become thoroughly glued together, so that even the removal of the vein-constricting clamp was possible without back leakage.

There is no difficulty experienced in inserting the artery into the vein, because the wall of the former is sufficiently rigid to make it easily enter for an inch or more without kinking. For ease of manipulation, three or four inches of each vessel are needed. Whether the flow of blood could be stopped completely by pressure on the artery for a considerable time, without clotting at the end of the inserted artery, it is impossible to say with our present experience. With care,

1. Tolson's mixture, a solution for diluting the blood in counting the red corpuscles, consists of 8 gm. of sodium sulphate, 1 gm. of sodium chlorid, 30 c.c. of glycerin, 0.025 Gm. of methyl-violet, and 160 c.c. of distilled water.