plete retention of the sac, chiefly chorion, that might have been removed by the curette long before it was ultimately expelled.

Dr. L. E. Neale read a paper on

THE INDICATIONS FOR CÆSAREAN SECTION.

This paper is intended to stimulate interest in and discussion of the subject, Cæsarean section versus craniotomy on the living child. Craniotomy upon the living fœtus is believed to be justifiable, but only as a dire necessity, not as an elective procedure, and should not be resorted to where there is a reasonable probability of success by the section.

If seen early enough, the induction of premature labor at the 32nd to 34th week by the method of Krause was a very strong antagonist to craniotomy upon the living fœtus. The range for this operation should not extend to a conjugata vera below 2¾ inches (7 cm.), or to one above 3½ inches (8.75).

The indications for the conservative section included all insurmountable obstructions to the delivery of the living and viable child per *vias naturales*. They include: tumors; pelvic exudations; hypertrophic elongation of the cervix cicatrises; stenoses; tetanus uteri; falliform uterine contractions, etc. He believed general opinion placed the limit for the absolute indication at a conjugata vera of 1½ inches, or 3.75 cm., and the relative indication extended from that point up to an undermined conjugata vera measurement, and included many other conditions besides pelvic contractions. Other things being favorable, a 2½ inch, or 6.25 cm., conjugata vera (Harris), 3 inch, 7.5 cm., conjugata vera (Lusk), called for section rather than craniotomy, but be warned against relying entirely upon pelvimetry in the relative indication.

In contracted pelves he preferred version to forceps when both were practicable. He insisted upon pelvimetry, and briefly outlined the methods. He believed it was chiefly by this means we could determine the indications for the section.

A conjugata vera of 3 inches, 7.5 cm., was generally admitted to be the least through which a living child of normal proportions could pass, and as Lusk maintained, if other diameters were lessened, or the contraction was not limited to the brim, it might require a conjugata vera of 3½ inches, 8 cm., or more.

No hard and fast line could be given; each case must be judged alone. The relative size of the head, its resistance, the past history, the uncoerced consent, the general conditions and surroundings of the patient, etc., were all important factors in the relative indication.

The life of the child was not "purely impersonal and scientific," but eminently personal and practical, and he believed the mother should run a reasonable risk in its interest. The life-saving of craniotomy could never be as great as that of Cæsarean section, for it started with a necessary mortality of 50 per cent. or half the lives at stake. But aside from all argument and comparative statistics, the section was decidedly restricting craniotomy. All depreciate the repeated performance of craniotomy on the same woman. He accepted Carl Brann's rules for the relative indication.

Craniotomy was safer for the mother than section, but piecemeal extraction was equally if not more dangerous. Ex. 92, conjugata vera 2½ inches, 6.28 cm., or less.

If conservative delivery per *vias naturales* had been attempted and failed, this was a strong point in favor of craniotomy and against the section under these increased dangers.

He strongly depreciated conservative tampering and then resorting to the section. Many lives had been thus sacrificed. If we desired success, we must make the section an elective operation, and not a procedure of dire necessity.

Dr. Miltenberger: With regard to the paper of Dr. Neale's, confined as it is to the indications for the Cæsarean section, there is nothing which I would controvert. The confusion and discrepancy of opinion have arisen from want of definiteness and clearness as to the relative indications. If we take the statistics of craniotomy generally, including all cases, we get no positive resulting data to guide us.

Where the pelvis is so constructed as to necessitate the piecemeal extraction of the fœtus, it is recognized undoubtedly as the most serious of obstetric operations, and more dangerous than the Cæsarean section. Where, on the other hand, craniotomy is required, the operation is simple and the danger to the mother in proper hands should not be greater than from the application of the forceps.

Now it is just in this latter class that the doubt