on the upper surface. To the tenon and mortise, a screw is added, to prevent undue pressure on the fœtal skull.

The blades bear a kind of finger-ring longer and narrower than on the short curved forceps; inner surface of blade flat.

The following statement about this instrument was made by Professor Lazarewitch, of Kieff, at the International Medical Congress in 1881.

"*Since* 1866, when at the Conversazione of the Obstetrical Society of London, I first determined to exhibit my forceps, I have never given up the idea of improving the instrument. *I have changed its form several times,* preserving its essential qualities—not crossing of the halves and easy locking. To test the above properties, which I find to be indispensable in good forceps, I have constructed a new forceps which, besides having these chief characteristics of my former instrument, is entirely without the pelvic curve." ("On the Obstetrical Forceps," *Trans. International Med. Congress,* 1881, Vol. iv, p. 260.)

This instrument was presented by the inventor to the Obstetrical Society of London. *Royal Society of Medicine.*

53A. **Lazarewitch's Straight Long Forceps with Crossed Handles.**

Weight 1 lb. 2 oz. (0.510 kilogr.); length 14 in. (35.6 cm); length of blades to lower lock 10½ in. (26.6 cm.); breadth (near extremities) 1¾ in. (4.4 cm.); greatest breadth across blades 2⅝ in. (6.6 cm.).

"Gerber: St. Petersburg."

This instrument differs entirely from the inventor's straight long forceps (53) and from his short forceps with the pelvic curve, in having crossed instead of parallel blades. As in both these instruments, the angles have rectangular ends (not, however, in this case, fluted) to form a palm rest. Like the long forceps each limb is made of steel, with no ivory coating. The handles cross at two points, first, at one inch (2.5 cm.) above the palm-rest, and secondly, two inches (5.08 cm.) higher. Between the joints the left blade, reduced in thickness in front and behind, describes a semicircle with its concavity inwards. The right also describes a semicircle between the joints with its concavity inwards, and it bears a long opening into which the semicircular portion of the opposite blade is received when the blades are locked. Then the opposed semicircles leave between them a circular space about 1¼ in. (3.17 cm.) in diameter.

The shanks are over 3 in. (7.6 cm.) long, and not very divergent; they are not distinctly divided from the blades, which bear no pelvic curve.

This instrument is one of the numerous varieties of forceps devised by Lazarewitch (see note to No. 53); it is not figured in Witkowski's "Arsenal Obstétrical." This sample was presented to the Obstetrical Society by the designer in 1893.

Royal Society of Medicine.

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54. **Aveling's Forceps.**

Weight 10 oz. (283 grms.); length $10\frac{3}{4}$ in. (27.3 cm.); length of blades 7 in. (17.7 cm.); breadth $1\frac{3}{4}$ in. (4.4 cm.); length of fenestræ $4\frac{3}{8}$ in. (11.1 cm.); breadth of fenestræ $1\frac{1}{4}$ in. (3.17 cm.); space between extremities of closed blades $\frac{1}{2}$ in. (1.27 cm.); greatest breadth across blades $2\frac{3}{4}$ in. (7 cm.).

"W. & H. - -, - inson, Sheffield."

Handles strongly curved, lined with smooth ebony, big palm-rest. No finger-rest or flange, no shoulder. English lock.

Blades with cephalic, pelvic and perineal curve, all marked; broadest near extremities, no shanks distinct from blades.

The history of this instrument is given by the inventor in several volumes of the *Transactions of the Obstetrical Society of London.* In March 1868 (*loc. cit.*, vol. x, p. 40), "Dr. Aveling exhibited a pair of midwifery forceps, the blades of which were curved backwards. By this modification a better grasp is obtained in making traction. The handles are more out of the way of the operator in introducing and locking the blades, and are also not interfered with by the legs of the patient when the head is passing over the perineum." In January 1876 (*loc. cit.*, vol. xviii, p. 2), "Dr. Aveling presented a pair of his forceps [this instrument] to the Society for the Museum." In June 1878 (*loc. cit.*, vol. xx, p. 130), Dr. Aveling read a memoir on "The Curves of Midwifery Forceps—their Origin and Uses." He claims (p. 148) to have been the first to introduce the handle curve, adding "Tarnier, in 1877, invented his ingenious forceps, which has the same sigmoid form as my own, and which is undoubtedly theoretically excellent, but practically far too complicated to come into general use." Further experience, however, showed that the Aveling type of instrument did not work satisfactorily, and Tarnier's axis-traction forceps soon became established. Dr. Aveling remarked in the course of a discussion (*loc. cit.*, vol. xx, p. 161) that "in his instrument the handles were purposely made smooth, because traction was intended to be made from their hooks, the sides being used simply for compression."

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