

## A MODIFICATION OF THE KIELLAND, SIMPSON, AND TUCKER-McLANE FORCEPS TO SIMPLIFY THEIR USE AND IMPROVE FUNCTION AND SAFETY

RALPH LUIKART, M.D., F.A.C.S., OMAHA, NEB.

**T**HE purpose of this modification is to make the use of forceps more safe, more simple, and yet not impair their function.

It is true that "it is not the forceps but the obstetrician behind them on which the results depend," but, the nearer foolproof the instrument, the safer its use.

For years I have advised my students to purchase solid blade forceps because I have felt they are safer for the beginner. Once a proper parietal application of any obstetric forceps is made the greatest danger of damage to the fetus is due to the slipping of the forceps. This is less likely to occur if the part of the fetus between

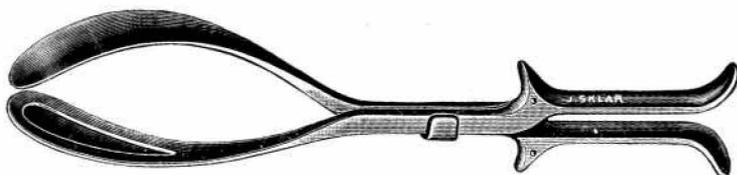


Fig. 1.—Kielland forceps.



Fig. 2.—Tucker-McLane forceps.

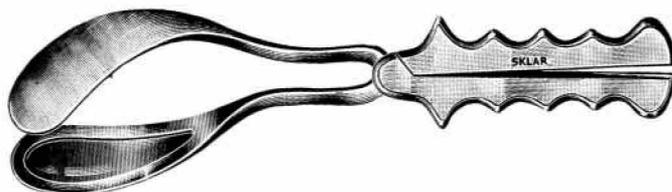


Fig. 3.—Simpson forceps.

the blades is more firmly grasped. This can only be done by greater compression of the part by the forceps. The greater compression increases the possibility of injuring the fetus. Forceps are fenestrated with the hope of decreasing the danger of the forceps slipping and at the same time using less compression. Hence, the fenestra has a definite value but there is always danger of an ear, nose, or superciliary ridge protruding through the fenestra, and then only a slight slip of the forceps may seriously damage that part.

There is no surgical instrument with a smooth surface that is used for traction except the solid blade obstetric forceps, yet traction is the prime function of obstetric forceps. Therefore, it seems logical to assume that forceps so modified that the function is improved and the application and removal is made more simple, more safe, and yet not more complicated, should be the forceps of choice. I believe the forceps here described have been so improved as to attain these desirable qualities.\*

\*Manufactured by Sklar & Co., Chicago, Ill.

The modification consists of a change only in the design of the blade of the forceps so that the pelvic surface is smooth, as is the case in any solid blade forceps but the fetal surface of the blade has a depression similar to the fenestrated forceps. In short, it is a fenestra with the pelvic side closed. In the case of the Tucker-McLane forceps a depression similar to a fenestra has been made in the fetal side. The pelvic surface of the blade appears unchanged. The weight of the forceps is practically unchanged. The application and removal is made with greater ease and most important, the safety is definitely increased.

#### COMMENTS

1. In 1851 Smellie recognized the need for such a modification of forceps with fenestrated blades. He covered the blades with leather.

2. Standard Kielland forceps, weight  $9\frac{1}{4}$  ounces, 10 grains. Plated Kielland forceps, weight  $10\frac{1}{2}$  ounces. Tucker-McLane forceps, weight  $13\frac{5}{8}$  ounces.

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