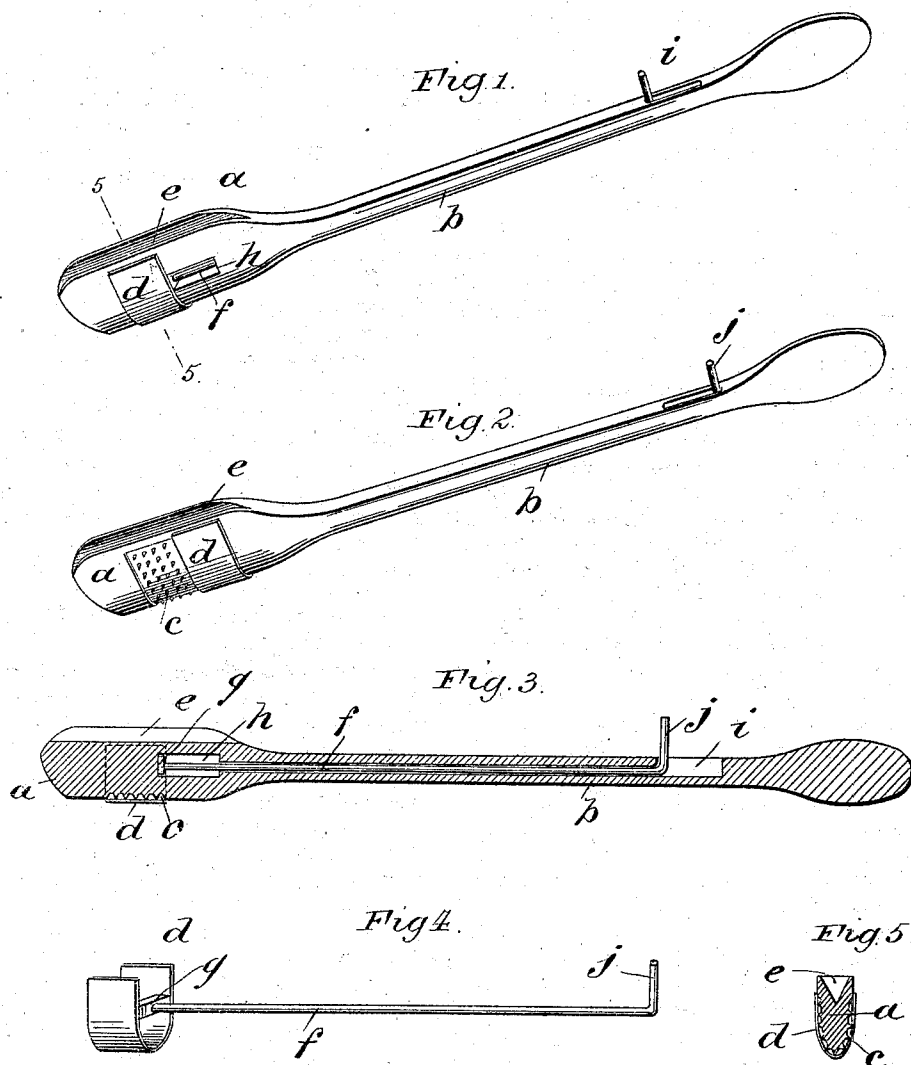


(No Model.)

A. DALLAS.
HERNIAL INSTRUMENT.

No. 505,818.

Patented Oct. 3, 1893.



WITNESSES:
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ALEXANDER DALLAS, OF NEW YORK, N. Y.

HERNIAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 505,818, dated October 3, 1893.

Application filed October 31, 1892. Serial No. 450,579. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER DALLAS, of New York, in the county of New York and State of New York, have invented a new and useful Surgical Instrument for use in Hernial Surgery, of which the following is a full, clear, and exact description.

The object of the invention is to produce an instrument for insertion in the inguinal or femoral canals, and so constructed as to be capable of an abrasive or an incisive action on the internal ring and the canals, to the end that the same may be closed or obliterated by agglutination.

The invention consists in the novel features hereinafter particularly described and defined in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved instrument, showing a shield forming part thereof in position to cover the abrasive or incisive surface of the instrument. Fig. 2 is a similar view with the shield in position to expose the abrasive or incisive surface. Fig. 3 is a longitudinal sectional elevation. Fig. 4 is a perspective view of the shield and its operating rod; and Fig. 5 is a transverse section on the line 5—5 of Fig. 1.

My improved instrument in the particular embodiment thereof illustrated in the drawings, comprises a head *a*, having an elongated handle *b*, an abrasive or incisive surface *c*, for forming incisions or cuts in the internal ring and the inguinal or femoral canals, and a shield *d* for covering the said surface while the instrument is being inserted.

The head *a* is made somewhat flattened for its ready insertion, and along one side edge thereof is a groove *e*, such grooved edge being for the purpose of receiving and protecting the spermatic cord or femoral vein when the instrument is being manipulated.

The abrasive or incisive surface *c* in the form shown is in the form of numerous pricks or short, needle pointed spurs, on one side edge and the opposite flat faces, whereby numerous abrasions will be made. I do not how-

ever, limit myself to this particular surface, as any equivalent means for cutting, abrading, or otherwise "freshening" the canal to cause agglutination, may be employed and are included in the term abrading or incisive surface.

In the particular embodiment of my invention shown in the drawings, the handle *b* is made hollow, as best shown in Fig. 3, for receiving the operating rod *f* of the U-shaped shield *d*, the latter being joined to its rod by the head or cross piece *g*, which in the movement of the shield longitudinally of the instrument, moves in the through slot *h*, of head *a*. The operating rod *f* may be arranged in any proper manner to facilitate its longitudinal movement to move the shield; in the form shown it is bent at right angles to project through a lateral opening *i* in handle *b*, the projecting end *j* of the rod thus forming a handle for manipulating the rod.

In the operation of curing rupture by obliterating the inguinal or the femoral canal, an incision is made opposite or adjacent to the external ring of the inguinal canal or over the saphenous opening of the femoral canal, sufficient for the head *a* of the instrument to enter such external ring or opening, and the instrument is entered in the canal until its head *a* projects into the abdominal cavity. While the instrument is being inserted the shield *d* is maintained in position over the abrasive or incisive surface, and the grooved side edge is presented to the spermatic cord (or the femoral vein). The instrument having been inserted, the rod *f* is manipulated to withdraw the shield *d* from the surface *c*. The instrument is now withdrawn bodily, and as the cutting points engage the walls of the canal, they will abrade the same, "freshening" their surfaces. The operation having been thus performed, a suitable compressive pad is placed on the body over the canal and suitably bandaged, and maintained in position until the canal is obliterated by agglutination, the instrument in its retrograde movement being closely followed and the "freshened" surfaces immediately pressed together to prevent unnecessary effusion of blood.

The provision of a grooved edge or equivalent

lent guard for the spermatic cord or femoral vein precludes any possible injury, and the shield for the abrasive or incisive surface, facilitates the operation and prevents undue abrasion.

The effectiveness of the instrument may be said to be due, not only to the multiplicity of abrasive projections that successively abrade the surface as they follow each other in the withdrawal of the instrument, but also, and primarily in a measure, to the fact that they range on the head across the instrument, that is, transversely, or at an angle to the direction of movement of the instrument.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A hernia instrument provided with a head adapted for entrance to the inguinal canal or the like, said head having an abrasive surface, substantially as and for the purpose described.

2. A hernia instrument comprising an elongated handle provided with a head having an abrasive surface, and a movable shield for such surface, the shield having an operating

rod extending to the rear of the instrument, substantially as described.

3. A hernia instrument having a head adapted for entrance in the inguinal or femoral canals, and formed with an abrasive or incisive surface and with a guard for protecting the spermatic cord or femoral vein, substantially as described.

4. A hernia instrument having a head adapted for entrance in the inguinal or femoral canals, and having a longitudinal groove therein for receiving the spermatic cord or femoral vein, and having also an abrasive or incisive surface, substantially as described.

5. A hernia instrument having a somewhat flattened head formed with a longitudinal groove in one side edge, and provided with spurs on its opposite side edge and on the flat surfaces, and a U-shaped shield adapted to cover said spurs and having means for moving the shield, substantially as described.

ALEXANDER DALLAS.

Witnesses:

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