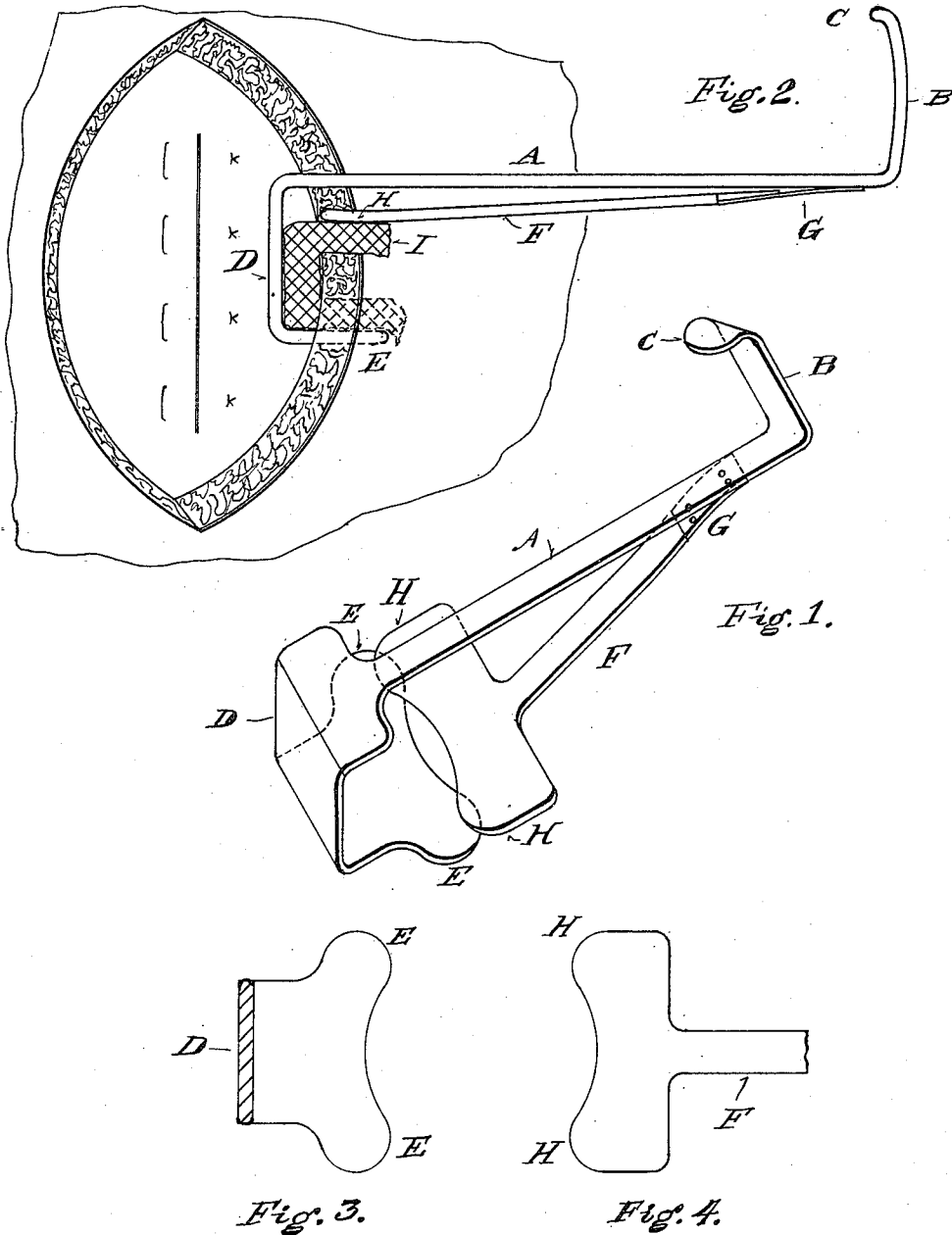


R. W. BINNEY.
COMPRESSION RETRACTOR.
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1,060,738.

Patented May 6, 1913.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ROBERT WEBSTER BINNEY, OF GRANITE CITY, ILLINOIS.

COMPRESSION-RETRACTOR.

1,060,738.

Specification of Letters Patent.

Patented May 6, 1913.

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To all whom it may concern:

Be it known that I, ROBERT WEBSTER BINNEY, citizen of the United States, residing at 1905^A D street, Granite City, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Compression-Retractors, of which the following is a specification.

This invention relates to certain new and useful improvements in compression retractors especially adapted for use in surgical operations.

The object of my invention is to provide a retractor that will maintain its adjusted position upon the edge of the incision made through the walls of the abdominal cavity, for instance, retain the gauze protecting the raw edge of flesh, and retard the bleeding.

The peculiarities of my invention will be hereinafter described in the specification and particularly pointed out in the claims.

In the accompanying drawing in which like reference letters indicate corresponding parts, Figure 1 represents a perspective view of a retractor exemplifying my invention; Fig. 2, a side view of this retractor mounted upon the edge of a diagrammatic surgical opening and holding the projecting gauze in place. Fig. 3, a sectional plan view of the lower portion of the hook, and Fig. 4, a plan view of the matching compressor portion of the retractor.

The letter A designates the shank or upper part of a retractor having a handle B, turned upward and forward at its tip C, to prevent its slipping from the hand of the operator as he pulls backward on it. The opposite end widens out and is bent downward and backward to form a hook D, having its lower portion laterally widened by flaring, rounded prongs E E. The shank and handle are preferably made of flat, narrow plate metal with rounded edges; the hook portion is made considerably wider, and the prongs are made wider yet, in order to give strength to the hook and embrace more of the edge of the incision with which it is engaged. The prongs are substantially parallel with the adjacent portion of the shank and hook above it. Within the rectangular space thus formed by the hook, is mounted a compressor F that acts downward upon the lower portion of the hook. This compressor has a spring G by which it is connected at one end to the shank A, or is otherwise adapted to act compressively upon

the upper side of the said prongs of the hook, or upon any interposed substance. The other end of said compressor is also widened laterally to form thin lips H H that substantially match the said prongs of the hook, toward which they have a spring tendency.

In using this retractor, the piece of protecting gauze I is held against the raw edge of the incision by the straight up and down part of the hook, the prongs hold the gauze from below, while the compressor holds the gauze from above. The interposed flesh is compressed, bleeding is lessened, and the retractor is self-retaining in the position where it is mounted, so that it has no tendency to slip off or release the gauze when the handle is freed. When it is being inserted into a comparatively small incision, one of the prongs is advanced with a sidewise motion of the handle and the other follows as the handle is pulled backward and the hook and compressor is brought to bearing.

While I have shown this form of my retractor as the preferred construction exemplifying my invention, I do not limit myself to the exact shape or arrangement illustrated. The form illustrated has the advantage of being readily sterilized, but may be varied without departing from the spirit of my invention.

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

1. A surgical retractor, comprising a shank provided with a handle, a hook extending from one end of said shank and having its lower portion substantially parallel therewith, and a compressor adapted to act downward toward the lower portion of said hook, whereby pressure is exerted upon interposed flesh, substantially as described.

2. A surgical retractor, comprising a shank, a handle, a hook extending from one end of said shank, the lower portion of said hook being substantially parallel to the shank and provided with laterally projecting prongs, and a compressor having lips matching said prongs and adapted to compress the interposed flesh and gauze.

3. A surgical retractor, comprising a shank, a handle, a hook having its lower portion bent backward substantially parallel with the shank, and a spring compressor opposing said lower portion of the hook with a normal spring tendency, whereby the

retractor will maintain its adjusted position on interposed gauze and flesh, substantially as described.

4. A self-retaining surgical retractor comprising a shank bent upon itself at one end to provide a hook portion, the free end of which extends substantially parallel to the shank of the retractor and is provided with a relatively wide flat inner surface, and a
5
10 leaf spring secured to the underside of the

shank and provided at its free end with a compressor overlying the wide inner surface of the free end of the hook portion and substantially co-extensive therewith.

In testimony whereof I have affixed my signature in presence of two witnesses.

ROBERT WEBSTER BINNEY.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."