

(No Model.)

J. SPARENBURG.
SPECULUM.

No. 469,351.

Patented Feb. 23, 1892.

Fig. 1.

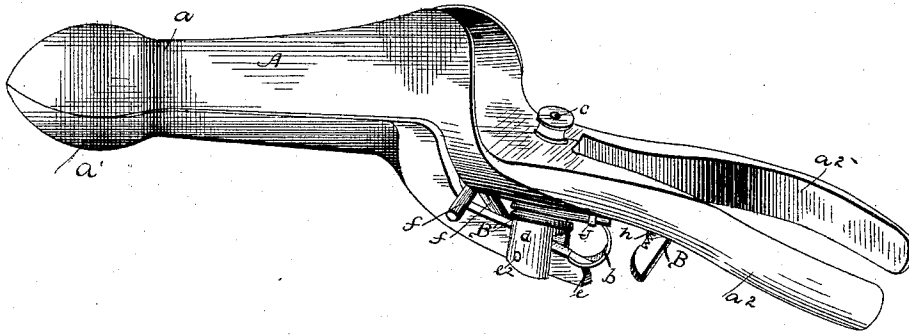


Fig. 2.

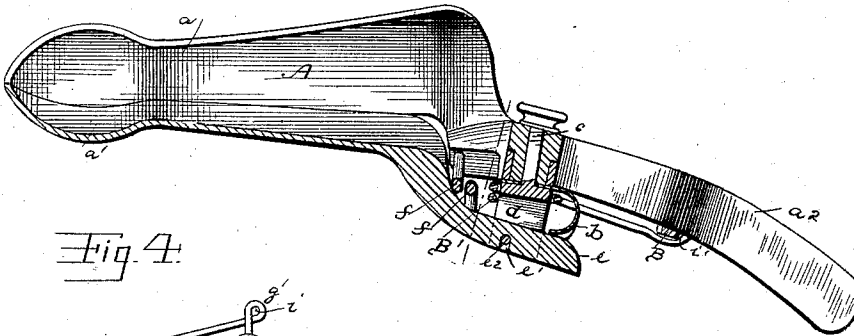


Fig. 4.

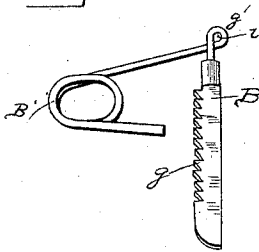
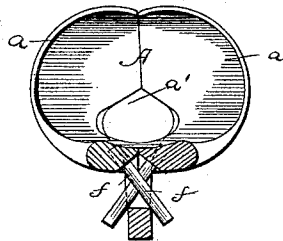


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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SPECULUM.

SPECIFICATION forming part of Letters Patent No. 469,351, dated February 23, 1892.

Application filed November 23, 1891. Serial No. 412,810. (No model.)

To all whom it may concern:

Be it known that I, JOHN SPARENBURG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Surgical Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to obstetrical instruments, more particularly speculums, having for its object, among other things, to effect the simultaneous actuation of the various sections of the expander, and to provide for the joint action of the retaining spring and pawl; and to these ends the invention consists of the novel construction and combination of the parts, all as hereinafter disclosed, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved speculum. Fig. 2 is a longitudinal section, and Fig. 3 a cross-section, thereof; and Fig. 4 is a detached perspective view of the combined pawl and spring, being integral.

In the embodiment of my invention I provide the speculum or instrument of that class having its expander A formed of three sections *a a a'* with a hook-like spring *b*, preferably of flat or plate metal, having its apertured straight portion fitted upon a headed screw-threaded pivot *c* of the upper two sections *a* and beneath the base of the post *d*, within which is fulcrumed the lower third section *a'* of the expander. The lower curved end of the spring *b* bears against the upper side of the reduced downwardly and outwardly inclined tang-like extension *e* of said lower section *a'* of the speculum and holds said section removably in place.

The extension *e* of the section *a'* of the speculum has in its lower edge a slot or notch *e'*, which engages a cross-pin *e²* in the bifurcated lower end of the post *d*, said slot or notch being engaged from below with the cross-pin after the insertion of the extension into the bifurcation of the post.

The upper speculum-sections *a a* are pro-

vided with crossing obliquely-disposed studs or projections *f f*, between the lower free portions of which rests the lower single speculum-section *a'*. Therefore, as the upper speculum-sections *a a* are actuated they will, through the crossing obliquely-arranged studs or projections *f f*, actuate the lower speculum-section *a'*, thus effecting through said means the simultaneous actuation of said section with the manipulation of the upper sections.

B is the pawl, with its integral spring B', for the automatic retention of the speculum-sections in their expanded position, consisting of the serrated-edged knife-blade-like bar *g*, arranged crosswise of the handles *a² a²* of the upper speculum-sections *a a* and adapted to engage a stud *h* on one of said handles.

The spring B' consists of a coiled tensioned wire *g'*, integral with the pawl B and having an eye *i*, receiving a pivot-stud *i'* on the other handle of the speculum-sections *a a*, to form a fulcrum for the pawl, the coil of the spring being slipped around the post *d*, and the free end of said spring being engaged with a projection *j* on the opposite handle.

This speculum, it will therefore be seen, is readily separable as to all its parts, and readily put together, and easily actuated or manipulated, and quickly cleaned, and free from liability to get out of order.

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

1. The speculum having its upper sections provided with obliquely-arranged crossing studs or projections adapted to engage the other section thereof, substantially as set forth.

2. The speculum having the hook-shaped spring with its apertured straight portion fitting on the pivot-screw of the upper sections of the speculum and having its lower curved end bearing against the lower speculum-section, substantially as set forth.

3. The speculum having the combined pawl and spring, the two being integral, consisting of the serrated-edged bar adapted to engage a stud on one handle of the instrument,

and the spring having an eye to receive a
projection on the other handle to serve as a
fulcrum for said pawl and having its coil
slipped around the fulcrum-post of the upper
5 speculum-section and its free end engaging the
projection on the other handle, substantially
as specified.

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

JOHN SPARENBURG.

Witnesses:

EDWARD F. THOMAS,
GEO. S. FOSTER.