

No. 872,344.

PATENTED DEC. 3, 1907.

F. E. GRISWOLD.
SPECULUM.
APPLICATION FILED MAY 31, 1907.

Fig. 1.

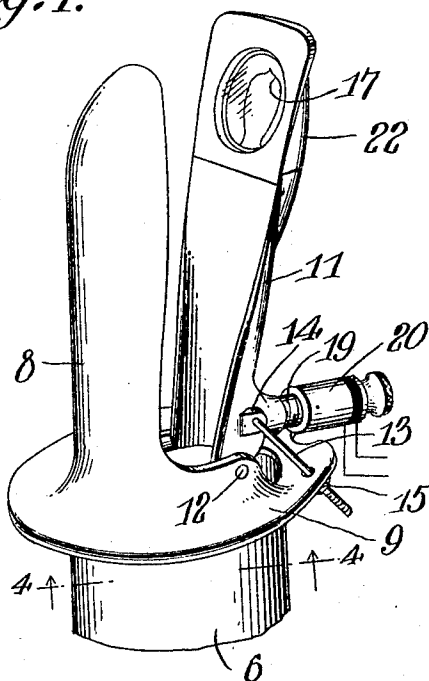


Fig. 2.

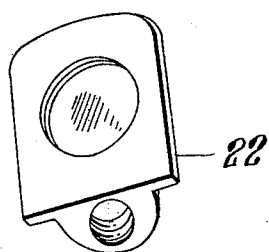
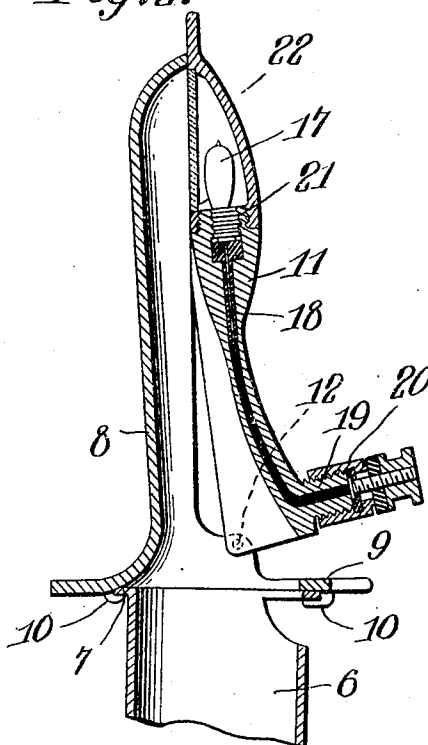


Fig. 3.

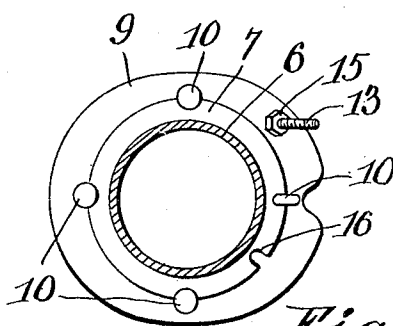


Fig. 4.

Witnesses
C. E. Smith.
Geo. E. Tew

Inventor
Franc E. Griswold
By
Milton S. Sturges.
Attorney

UNITED STATES PATENT OFFICE.

FRANK E. GRISWOLD, OF GENEVA, OHIO.

SPECULUM.

No. 872,344.

Specification of Letters Patent.

Patented Dec. 3, 1907.

Application filed May 31, 1907. Serial No. 376,681.

To all whom it may concern:

Be it known that I, FRANK E. GRISWOLD, citizen of the United States, residing at Geneva, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Speculums, of which the following is a specification.

This invention relates to speculums, and is intended particularly to be applied to the speculum shown and described in my pending application No. 361759, filed March 11, 1907, although the present invention is applicable to speculums of any kind.

The object of the present invention is to form an improved rotatable head for a duck bill speculum, so as to enable the parts to be turned when in use.

A further object of the invention is to provide improved means for fastening the end of the movable jaw which contains the lighting device, permitting convenient and easy removal of the device.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of the jaws of a speculum constructed according to the invention. Fig. 2 is a central longitudinal section. Fig. 3 is a perspective view of the end of the movable jaw detached. Fig. 4 is a section on the line 4—4 of Fig. 1.

Referring specifically to the drawings, 6 indicates a tubular support which may connect to, or form part of, a sight tube or the like, for the purpose of ocular inspection. This tube has at the end an outwardly-extending annular flange 7. The fixed jaw of the speculum is indicated at 8 and it is formed integral with the ring 9, which has hooked lugs 10 which hook under the rim or flange 7. The movable or openable jaw is indicated at 11, pivoted to the sides of the fixed jaw at 12. The ring 9 supports both jaws, and it may be turned on the annular flange 7 to bring the jaws to any angle or position desired.

For the purpose of holding the jaws open when desired, the movable jaw 11 is provided with a rearwardly-extending rod 13 connected to a lug 14 on the jaw and extending through a hole in the ring 9, and threaded to receive a nut 15 behind said ring, and when the jaws are opened the nut may be run down to hold them open. In

order to allow the jaws to be removed from the supporting tube 6 whenever desired, the rim 7 has a notch 16 which may be registered with one of the lugs 10 and pulled out, permitting the rim to be slipped out from under the remaining lugs and so separate the parts.

The electric bulb 17 is contained within a hollow or boss at the front end of the movable jaw 11 and the leader or conductor 18 thereto is located and sealed in a cored or bored recess in the roof of said movable jaw, extending to a nipple 19 which receives a binding post or cap 20 screwed thereon, to which the current wires may be connected.

The small lamp 17 screws in the socket formed in a projecting nipple 21 which is exteriorly threaded to receive the detachable end 22 of the upper jaw, which screws on said nipple. This jaw has a lens covering the lamp. The lamp may be readily removed by unscrewing and removing the end 22, which allows the lamp to be got at and removed when desired.

For the purpose of sterilizing the jaws they can, by the means above described, be readily removed from the supporting structure, and the electric light and wire connections can also be removed so that they will suffer no injury during the sterilization. The rotatable function allows all parts of the cavity being explored to be examined.

I claim:

1. The combination of a supporting tube, a relatively fixed jaw rotatably mounted on the end of the tube, and a movable jaw hinged to the fixed jaw.

2. The combination of a supporting tube having a ring flange at the end, a relatively fixed jaw with a ring at the base detachably connected to said flange and rotatable around the same, and a movable jaw hinged to the fixed jaw.

3. The combination of a pair of jaws hinged together, one jaw having a ring at the base with an opening therethrough, and the other jaw having a threaded rod extending through said opening and having a nut behind the ring.

4. A speculum having a jaw with a removable hollow end, containing a lens, and an electric lamp behind the lens.

5. A speculum having a jaw with a socket

at the end, a removable hollow end piece fitting on the end of the jaw and having a lens, and an electric lamp fitting in the socket and extending into the hollow of the end piece.

- 5 6. A speculum having a jaw with a projecting threaded nipple and socket at the front end, a removable hollow end piece screwed on said nipple and having a lens, and

an electric lamp screwed in the socket and extending into the hollow of the end piece. 10.

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

FRANK E. GRISWOLD.

Witnesses:

J. H. COPP,

R. J. CHRISTIAN.