

(No Model.)

J. W. DAILY.  
ENDOSCOPIC INSTRUMENT.

No. 559,122.

Patented Apr. 28, 1896.

Fig. 1.

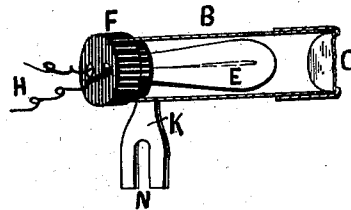
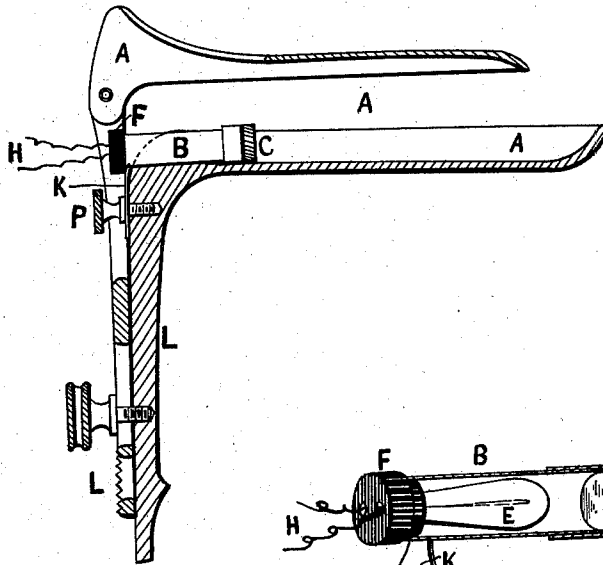


Fig. 2.

WITNESSES

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# UNITED STATES PATENT OFFICE.

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## ENDOSCOPIC INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 559,122, dated April 28, 1896.

Application filed August 21, 1895. Serial No. 560,073. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. DAILY, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Endoscopic Instruments, of which the following is a specification.

My invention relates to the manner of applying incandescent electric lights, whether buried or otherwise, to specula or instruments intended for use in illuminating cavities of the human body.

My invention consists of a detachable removable tube inclosing a small incandescent electric lamp of any suitable size and shape desired, varying in size and length of tube, as may be required, and in the details of construction hereinafter more fully described, and specifically set forth in the annexed claim.

To the posterior extremity of this lamp-carrying tube and integral with it is a thin bifurcated or slotted metal plate of any suitable length desired. The said plate is preferably constructed to project at right angles with the tube, but may be arranged at any angle or in any position best adapted to the convenient attachment of the tube-carrying lamp to any of the many and various instruments to which it may be applied and for which it may be more especially designed.

In the drawings hereto attached, which form a part of this specification, and to which reference is made, Figure 1 represents a vertical section of a female speculum, showing a lamp-tube attached to the posterior extremity thereof by means of a slotted plate and thumb-screw, whereby the lamp-tube and inclosed electric lamp may be detached and removed therefrom, as desired. Fig. 2 represents a sectional perspective view of the tube inclosing an incandescent electric lamp detached and removed from the speculum, so as to permit the speculum or instrument, after being used, to be cleansed more conveniently, the tube and lamp being drawn on an enlarged scale.

A represents a female speculum or any other instrument adapted for examining cavities of the human body, illuminated by means of an electric light applied as shown or otherwise in the instrument when inclosed within a tube.

B represents a metal tube formed of any shape and size desired, the inward end thereof being provided with a removable cap provided with a transparent disk C of mica or other desired material, so as to permit the light of the incandescent electric lamp E to shine through the same when in use or operation for such purposes as described. The opposite outward end of the said metal tube B is provided with a hard-rubber insulator-plug F, through which pass the electric wires H, connected with the small incandescent electric lamp E in the usual manner heretofore employed, wherein the terminals of the wires are connected to the opposite poles or elements of a common galvanic battery. Now in order to permit the said lamp and tube to be temporarily connected and held in position within the speculum or other instrument, and when desired to be quickly detached and removed, I provide the said metal tube B, near the outward end thereof, with a thin sheet-metal plate K, projecting downward at a right angle thereto and having the lower end portion bifurcated or provided with a vertical slot N, adapted to pass over the threaded thumb-screw P, provided in the handle portion L of the said speculum, so as to contact with the prongs of the said projecting plate K when turned or screwed inwardly, and thereby hold the said lamp-tube firmly in position while being used, as shown in Fig. 1, clamped to the said handle L.

It will be seen and understood that the said lamp-carrying tube may be detached and removed from the instrument when desired by simply turning the said thumb-screw, so as to release the said attaching-plate held in contact with said handle, as shown and described.

Having thus described my invention, what I claim is—

An endoscopic instrument having a separate, or independent tube inclosing therein an incandescent electric lamp and detachably connected to the instrument by means of a slotted plate and set-screw, as shown and described, as and for the purposes set forth.

JOHN W. DAILY.

Witnesses:

SYLVENUS WALKER,  
HENRY HOUGHTON.