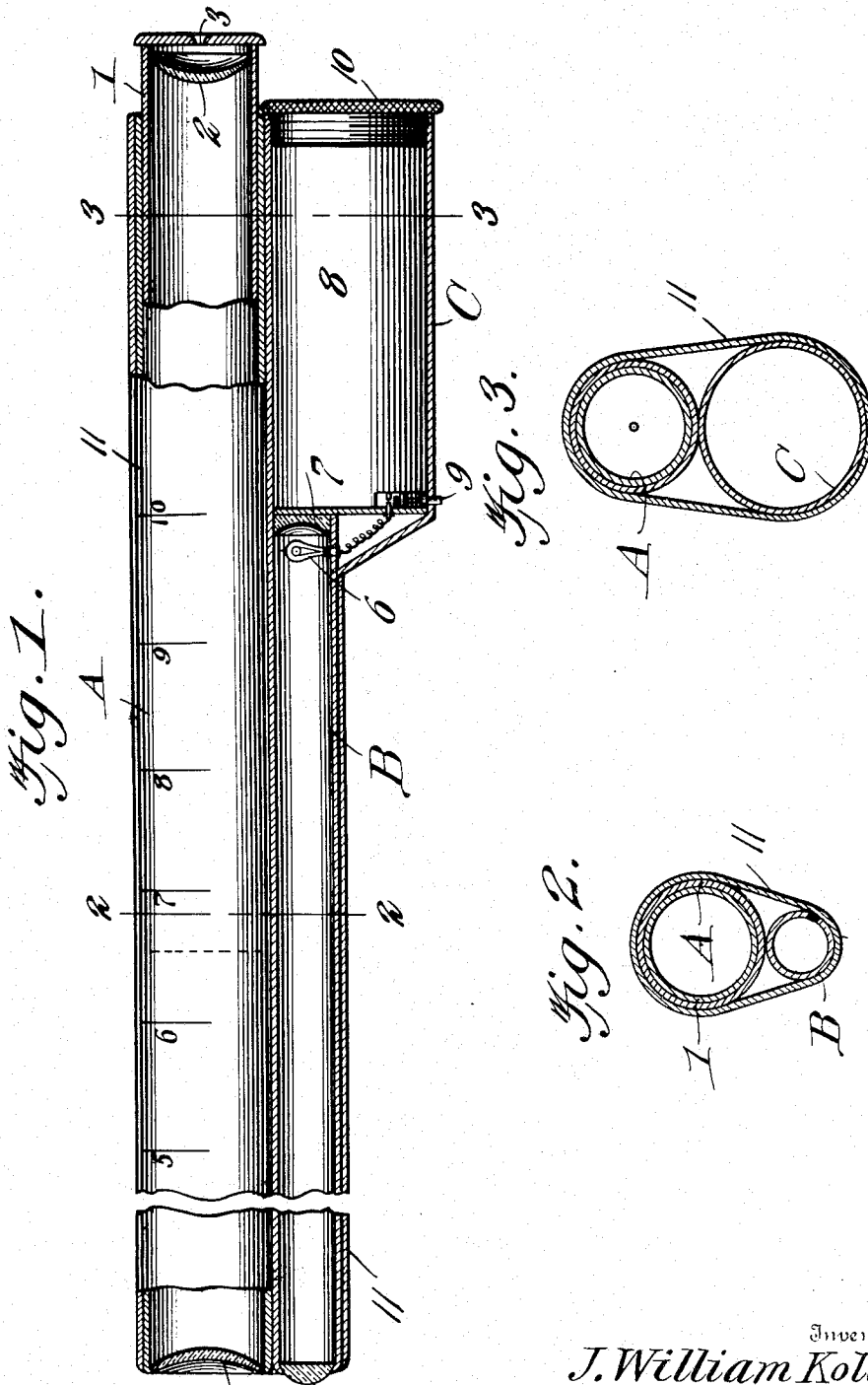


J. W. KOLB.
SURGICAL INSTRUMENT.
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939,034.

Patented Nov. 2, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN WILLIAM KOLB, OF FAIRFAX, OKLAHOMA.

SURGICAL INSTRUMENT.

939,034.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN WILLIAM KOLB, a citizen of the United States, residing at Fairfax, in the county of Osage and State of Oklahoma, have invented new and useful Improvements in Surgical Instruments, of which the following is a specification.

This invention appertains to surgical instruments for use by physicians, veterinarians and others to greatly facilitate the exploration of passages and cavities of the body when making examination to determine the condition or state thereof.

The invention has for its object to provide a device of this character which is so designed as to be comparatively simple and inexpensive to manufacture, readily applied or inserted and so designed as to effectively illuminate the parts to be examined.

Another object of the invention is the provision of a device of this character which consists of an observation section of tubular form having an adjustable eye piece, in combination with a light or illuminating device including an electric bulb that is adapted to be connected in circuit with a dry or other battery by means of a push button.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claim appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a longitudinal sectional view of the device with portions in elevation. Figs. 2 and 3 are transverse sections on lines 2—2 and 3—3, respectively.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawing, A designates the tubular sight section of the device which is of suitable length to conveniently reach the parts to be observed, there being arranged on the outside of the device a scale divided into inches or other suitable units for determining the extent of penetration or insertion of the device into the cavity or passage to be examined. In the other end of this tube is a telescopically arranged eye piece 1 in which is arranged a lens 2 dis-

posed in line with the pipe opening 3, the said eye piece being adjustable inwardly or outwardly for obtaining the proper focus. In the other end of the tube is an objective 4 which coöperates with the lens 2 to magnify the parts to be examined. Arranged parallel with the tubular body A is a tube B of smaller diameter which has its inner end flush with the objective carrying end of the tube A, and in the said inner end is arranged a bull's-eye lens 5. In the outer end of the tube B is an electric light bulb 6 behind which is positioned a reflector 7 whereby the rays of light are directed to and through the bull's-eye lens which effectively illuminates the parts to be diagnosed. Secured to the tube A is a compartment C which includes a dry battery 8 which supplies current to the lamp, there being a push button 9 for connecting the lamp in circuit with the battery. The outer end of the battery has a removable cap 10 through which the battery can be inserted or removed. The tubular bodies A and B are inclosed in a casing 11 which is perfectly smooth at all points so that the device can be positioned without tearing or lacerating a membrane.

In using the device, the objective end thereof is inserted in the cavity or passage to be examined, and when in proper position, the lamp is ignited by pressing the push button 9. The eye piece 5 is then adjusted to obtain the proper focus so that the physician or veterinarian can accurately diagnose the case.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claim appended hereto.

Having thus described the invention, what I claim is:—

In an instrument of the class described, the combination of a pair of tubular members disposed side by side, a battery casing

connected with the members, an electric lamp in one of the members, a switch for connecting the lamp in circuit with the battery, an objective in the inner end of the
5 other member and an adjustable eye piece in the outer end thereof, and a casing surrounding the two members.

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

J. WILLIAM KOLB.

Witnesses:

H. N. COOK,
J. H. TRIMM.