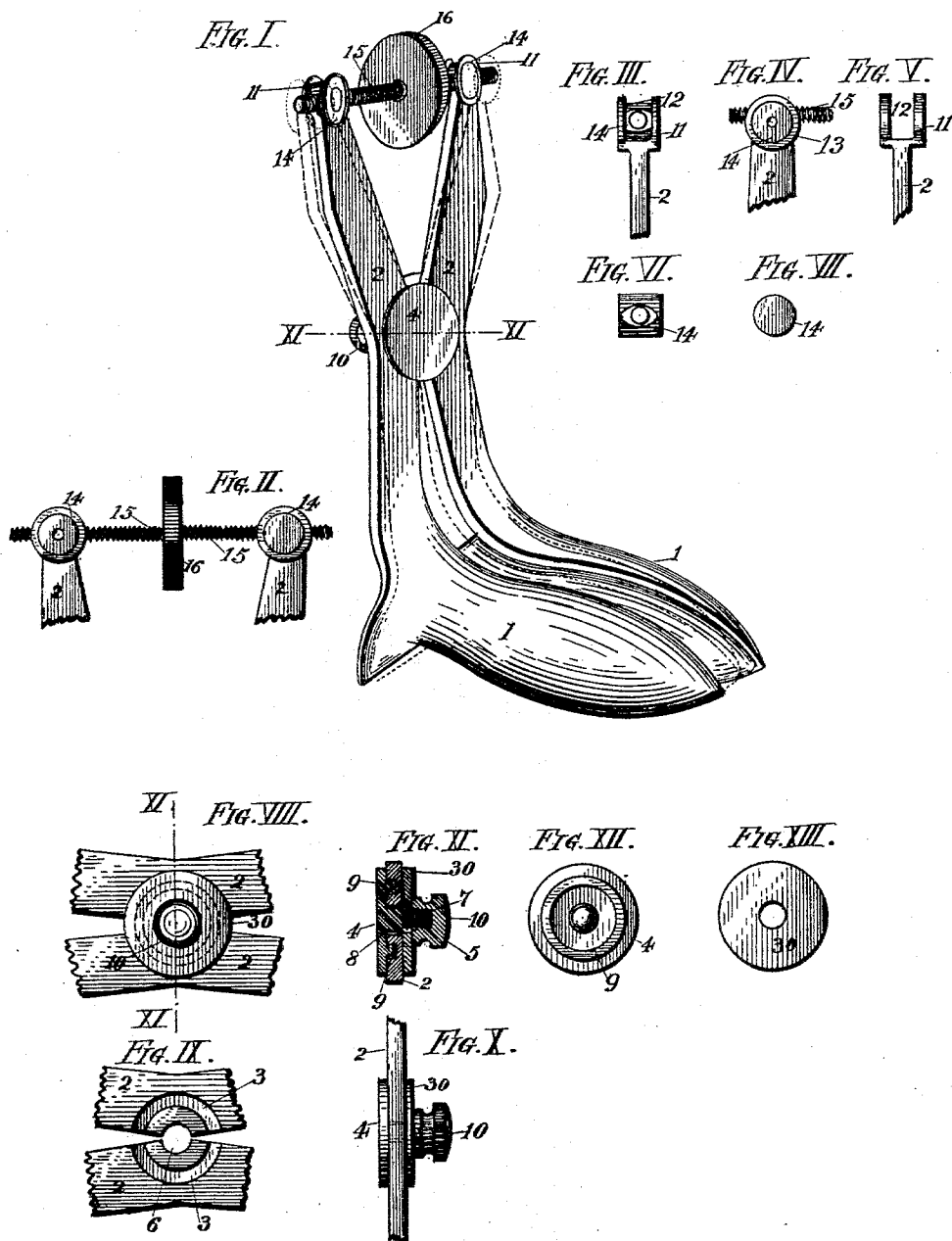


(No Model.)

O. PEDERSON.
RECTAL SPECULUM.

No. 583,932.

Patented June 8, 1897.



Witnesses:
Robt. Train.
Jas. White.

by

Inventor.
O. Pederson.
Knight Bros.
Attorneys.

UNITED STATES PATENT OFFICE.

OLE PEDERSON, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO DAVID J. KENNELLY, OF SAME PLACE.

RECTAL SPECULUM.

SPECIFICATION forming part of Letters Patent No. 583,932, dated June 8, 1897.

Application filed May 14, 1896. Serial No. 591,574. (No model.)

To all whom it may concern:

Be it known that I, OLE PEDERSON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in a Combined Rectal Dilator and Speculum, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in combined rectal dilators and speculums; and my invention consists in features of novelty hereinafter described and claimed.

Figure I is a perspective view of my improved device. Fig. II represents a front elevation of the adjusting-screw. Fig. III is a detail edge view of the outer end of one of the arms. Fig. IV is a detail side elevation of the outer end of one of the arms. Fig. V is a detail edge view of the outer end of one of the arms, showing adjustable nut removed. Fig. VI represents a side elevation of one of the adjustable nuts. Fig. VII represents an end elevation of the adjustable nut. Fig. VIII is a detail view showing manner of connecting the arms. Fig. IX is a detail view of a central portion of the arms, showing connecting mechanism removed. Fig. X is a detail side elevation of the pivoted arms. Fig. XI is a transverse section taken on line XI XI of Figs. I and VIII. Fig. XII represents the inner face of the arm-connecting disk. Fig. XIII represents the washer which holds arms in position.

Referring to the drawings, 1 represents the blades of the combined dilator and speculum, and 2 the arms by which the blades are operated, the blades being formed after the order of the ordinary speculum, whereby the two halves when placed together form a tubular body. The arms 2 are pivoted near their center, the contour of the arms being such as to permit a rocking movement on the central pivot. The arms 2 are provided near their center with an annular groove 3. In this way the arms lie in the same plane, and, being spaced apart by their bearing, their shape adapts them to rock to and from each other.

4 represents a disk having a central bolt 5,

which extends through a circular orifice 6, formed in the arms 2, the outer end of said bolt being threaded, as shown at 7, and the portion of the bolt next to the disk having a smooth annular surface 8, on which the arms 2 rock.

9 represents an annular rib on the face of the disk 4, said rib fitting into the annular recess 3 in the arms 2. The disk 4 is held in position by means of a washer 30, placed over the outer end of the bolt 5, and by a hand-nut 10, which screws onto the outer end of the bolt 5, thus by unscrewing bolt 10 and removing the disk 4 the arms 2, with their respective dilator-blades, will be readily separated for purpose of cleansing, &c. The outer ends of the arms 2 are forked, as shown at 11, leaving an intervening space 12. The forked portions 11 are provided with circular apertures 13, in which circular nuts 14 have their bearing, the nuts 14 being left free to revolve in their bearings.

15 represents a right-and-left screw with a central thumb-wheel 16, by which the screw is operated, the thumb-wheel being in position between the outer ends of the arms 2, the nuts 14 having an internal thread, into which the right-and-left screw 15 operates. It will be seen by this construction that as the thumb-wheel 16 is rotated the outer ends of the arms 2 are drawn toward each other or forced apart in order to expand or contract the dilator and that the nuts 14 will revolve in their bearings, so as to adjust themselves to the varying angle of the arms 2, thus avoiding any binding between the right-and-left screw and the nuts. By the means described I provide a dilator that can be set in any position in case it is desired to use it as a speculum and which is easily operated without friction of the parts.

I claim as my invention—

1. In a combined dilator and speculum, the combination of the blades, arms arranged edge to edge in the same plane and spaced apart, circular openings in the arms, circular nuts having peripheral movable bearings in said openings, a right-and-left screw engaging said nuts, and a thumb-wheel for operating said screws, substantially as set forth.

2. In a combined dilator and speculum, the

combination of the blades, arms connected
with the blades, spaced apart in the same
plane and shaped to rock to and from each
other, an annular recess in said arms, a re-
movable disk having an annular rib fitting
into said recess, and means for holding said
disk in position, substantially as set forth.

3. In a combined dilator and speculum, the
combination of the blades, arms connected
with the blades, spaced apart in the same

plane and shaped to rock to and from each
other, an annular recess in said arms, a disk
having an annular rib adapted to fit in said
recess, a circular shoulder forming a bearing
for the arms, and a nut for holding said disk
and arms together, substantially as set forth.

OLE PEDERSON.

Witnesses:

J. E. KNIGHT,

J. A. ROELOFSZ.