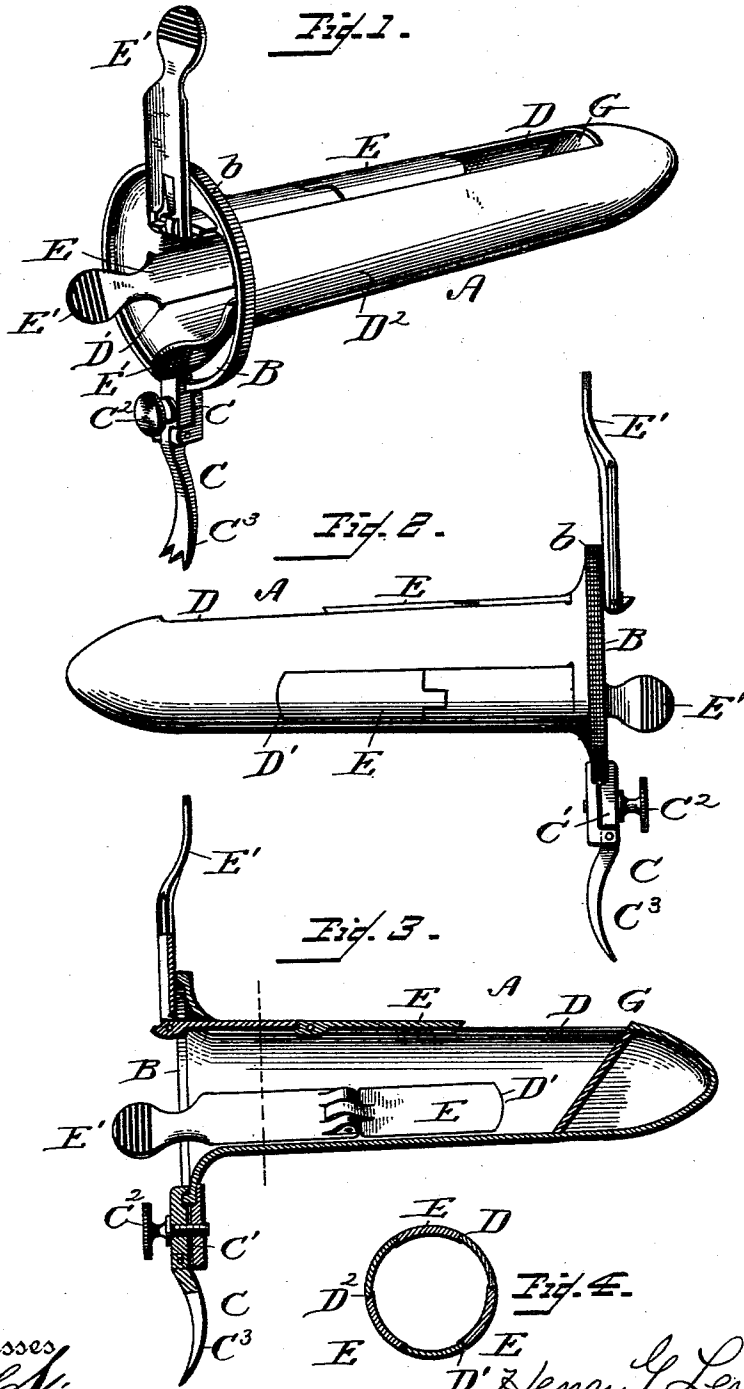


(No Model.)

H. G. LEISENRING.  
RECTAL SPECULUM.

No. 457,787.

Patented Aug. 18, 1891.



Witnesses  
*[Signature]*  
A. L. Hough

Inventor  
D. Henry G. Leisenring  
By his Attorney  
*[Signature]*

# UNITED STATES PATENT OFFICE.

HENRY G. LEISENRING, OF WAYNE, NEBRASKA.

## RECTAL SPECULUM.

SPECIFICATION forming part of Letters Patent No. 457,787, dated August 18, 1891.

Application filed June 24, 1891. Serial No. 397,362. (No model.)

### *To all whom it may concern:*

Be it known that I, HENRY G. LEISENRING, a citizen of the United States, residing at Wayne, in the county of Wayne and State of Nebraska, have invented certain new and useful Improvements in Rectal Speculums; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in speculums; and it has more particular reference to that class of speculums which are specially adapted for the treatment of hemorrhoids and other diseases of the rectum.

The invention consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating like parts throughout the several views, in which—

Figure 1 is a perspective view of a rectal speculum embodying my improvements. Fig. 2 is a side view of the same, showing the side opposite to that shown in Fig. 1. Fig. 3 is a longitudinal section. Fig. 4 is a transverse section upon the line  $xx$  of Fig. 3.

Reference now being had to the details of the drawings by letter, A designates the speculum, which is made of metal, and is plated in the usual manner to secure a bright interior and a smooth exterior surface. Preferably the shape of the body of the instrument is slightly conical, as shown in the accompanying drawings, though, if for any reason it should be preferred, it may be made straight. At its outer or open end a flaring or bell-shaped rim B is provided, the outer edge of which is milled, as shown at  $b$ , said milled edge being slightly thicker than the flange to

which it is attached, thus affording a hold or bearing for the clamping-jaws  $C'$  of the retainer C, which jaws may be secured loosely to the edge of the flange by means of the set-screw  $C^2$ , so as to retain its hold upon the rim and at the same time permit the speculum to be freely rotated; or, if desired, it may be locked against rotation by simply tightening the said set-screw, as will be readily understood. The retainer C is provided with an extension  $C^3$ , which is preferably in the form of teeth, which may be readily attached to the edge of an under-garment when it may be desired to hold the instrument in position.

The body of the speculum is provided with a series of longitudinal slots D, D', and D<sup>2</sup>, said slots being of a uniform width, but of varying lengths. As shown in the present instance, the slot D is represented as extending substantially the entire length of the instrument, the slot D' extending from the entrance two-thirds of the length and the slot D<sup>2</sup> one-third of the length of the same. These slots are each provided with a nicely-fitted cover or slide E, which is adapted to be moved freely, so as to open any desired portion of the slot which it covers. The outer ends of the said slides E are provided with suitable operating-handles E'. The longer slide is divided into a series of three hinged sections, each section being one-third of the length of the slide. The slide next in length is divided into two hinged sections, while the slide which is fitted to the shorter slot is made in a single piece, as shown. These hinged sections, when the slides are partly withdrawn, may be readily folded back out of the way of the operator, thus permitting ready access to the diseased parts and permitting the treatment of the same with shorter needles or other operating instruments.

At the extreme inner end of the chamber of the speculum an inclined reflecting surface or mirror G is provided, which will materially aid in the removal of the speculum from the rectum in case the intestine is forced within the slot, as will be understood.

It is well known that hemorrhoids more frequently develop near the entrance of the rectum, and in their treatment the use of the short slot D<sup>2</sup> only will be required. In case

the disease should be more deeply seated either the slide D and D' may be used, as occasion may require, but in cases in which it may be desired to inspect the walls of the rectum for a distance corresponding with the entire length of the speculum the longer slot D is opened but one-third of its length, the slot D' one-half of its length, and the slot D<sup>2</sup> its entire length, when by turning the speculum by means of its milled edge an inspection of the walls for the entire length of the instrument is permitted, and as, instead of presenting a single open slot, several shorter slots are provided, there will be less liability of injury to the patient due to the pressure of the intestine into the slot of the instrument.

By the use of the device which I employ for holding the speculum in position it may be readily secured, so as to retain its position without the aid of an assistant.

Having thus described my invention, what

I claim to be new, and desire to secure by Letters Patent, is—

1. In a rectal speculum, the combination, with the body portion, of a flaring or bell-shaped rim at the entrance, said rim being provided with a milled edge, substantially as and for the purpose described.

2. The combination, with the body portion of the speculum and the bell-shaped rim having a milled edge slightly wider than the thickness of the rim, of the retainer C, having jaws C', adapted to engage the rim, and with teeth C<sup>2</sup>, adapted to engage the edge of a garment and retain the instrument in position, substantially as and for the purpose described.

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

HENRY G. LEISENRING.

Witnesses:

A. L. HOUGH,

FRANKLIN H. HOUGH.