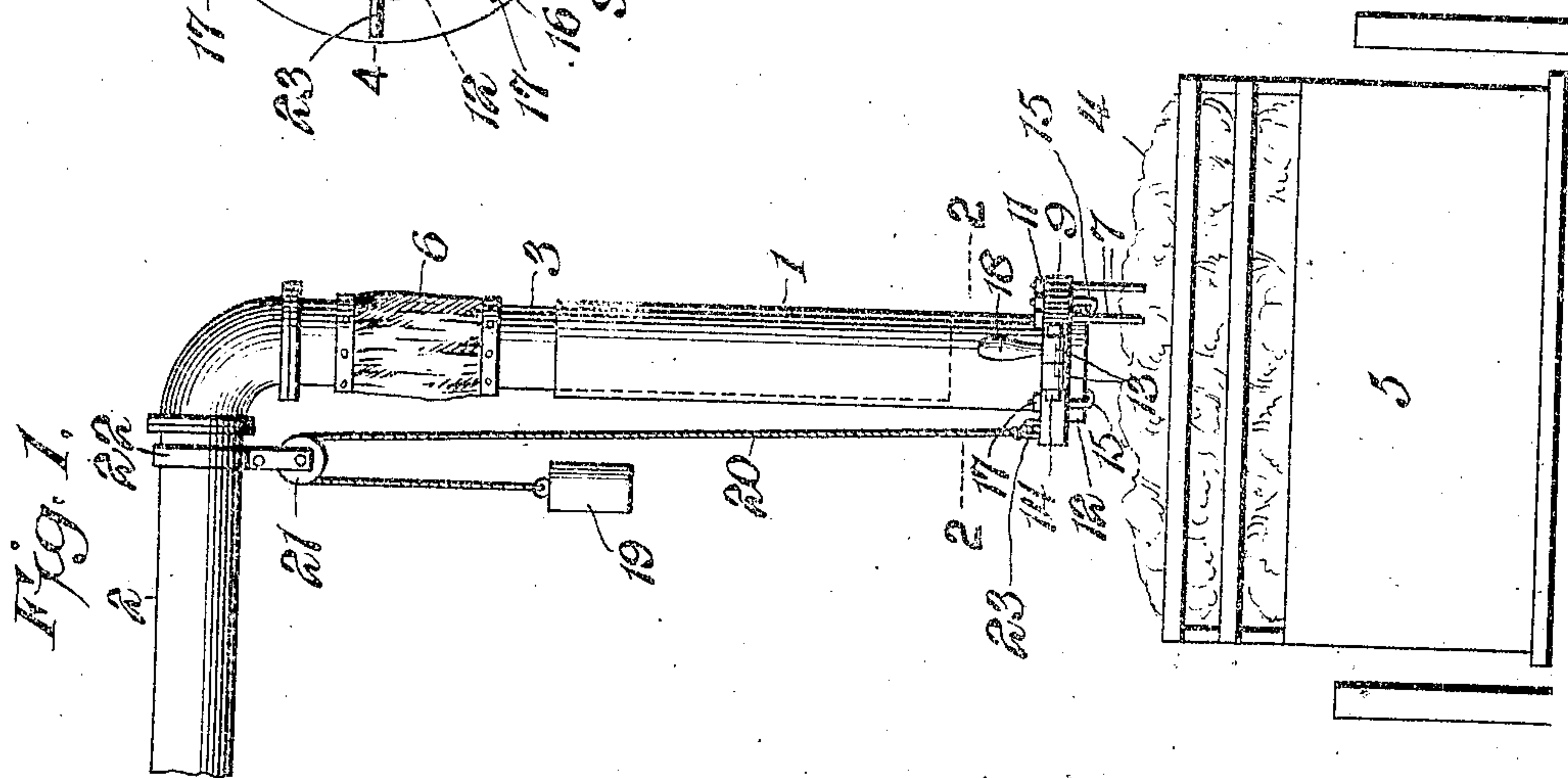
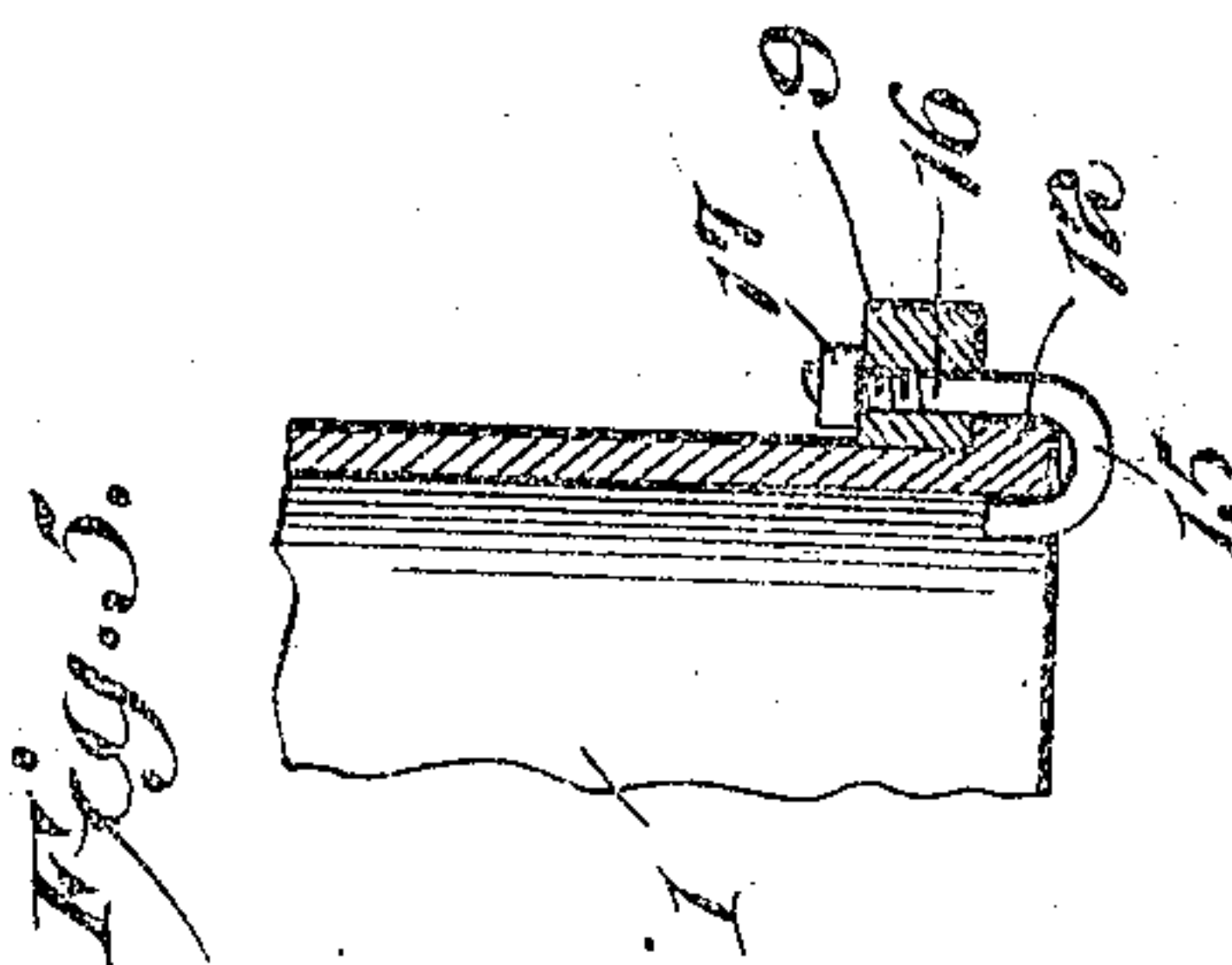
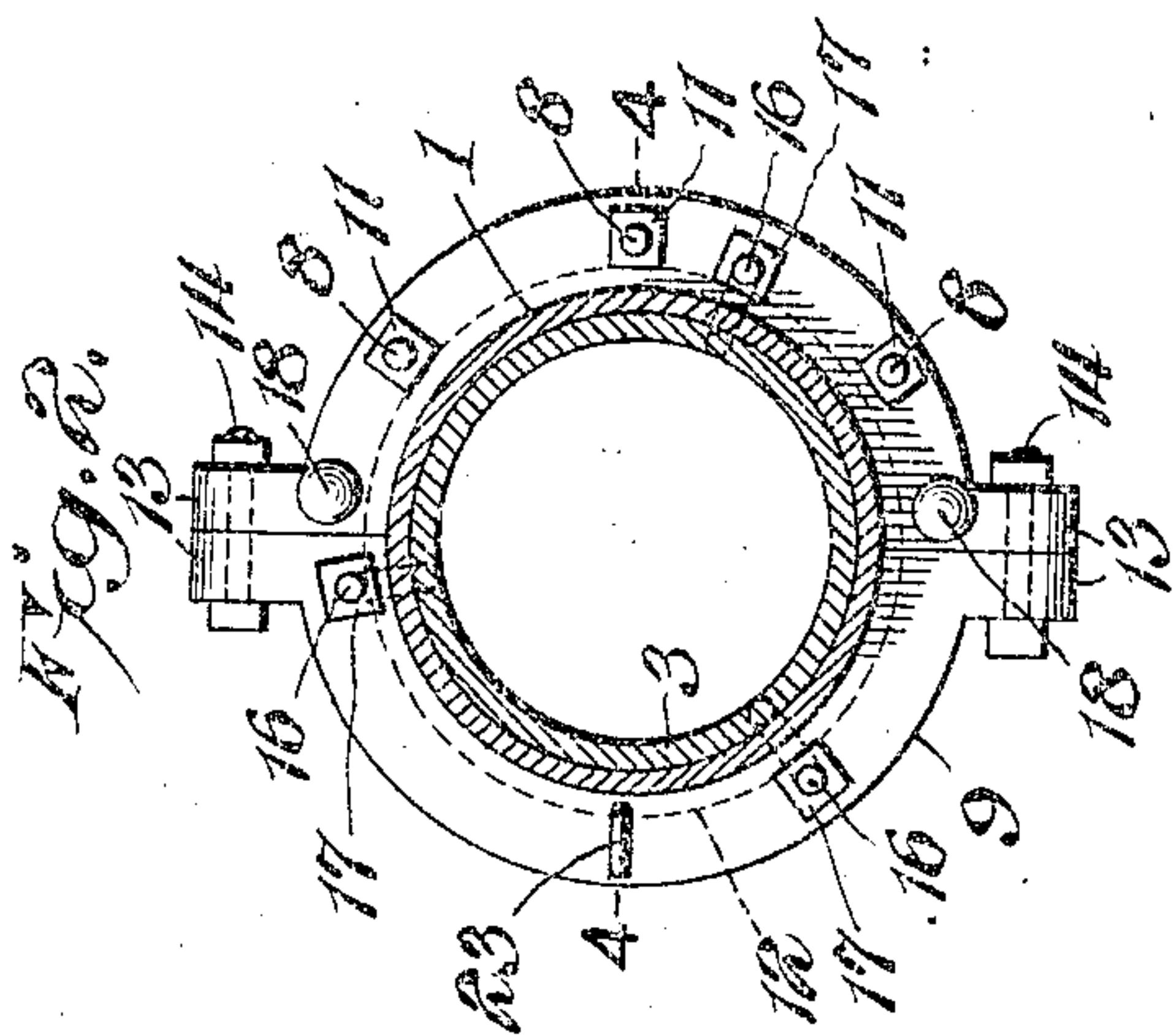
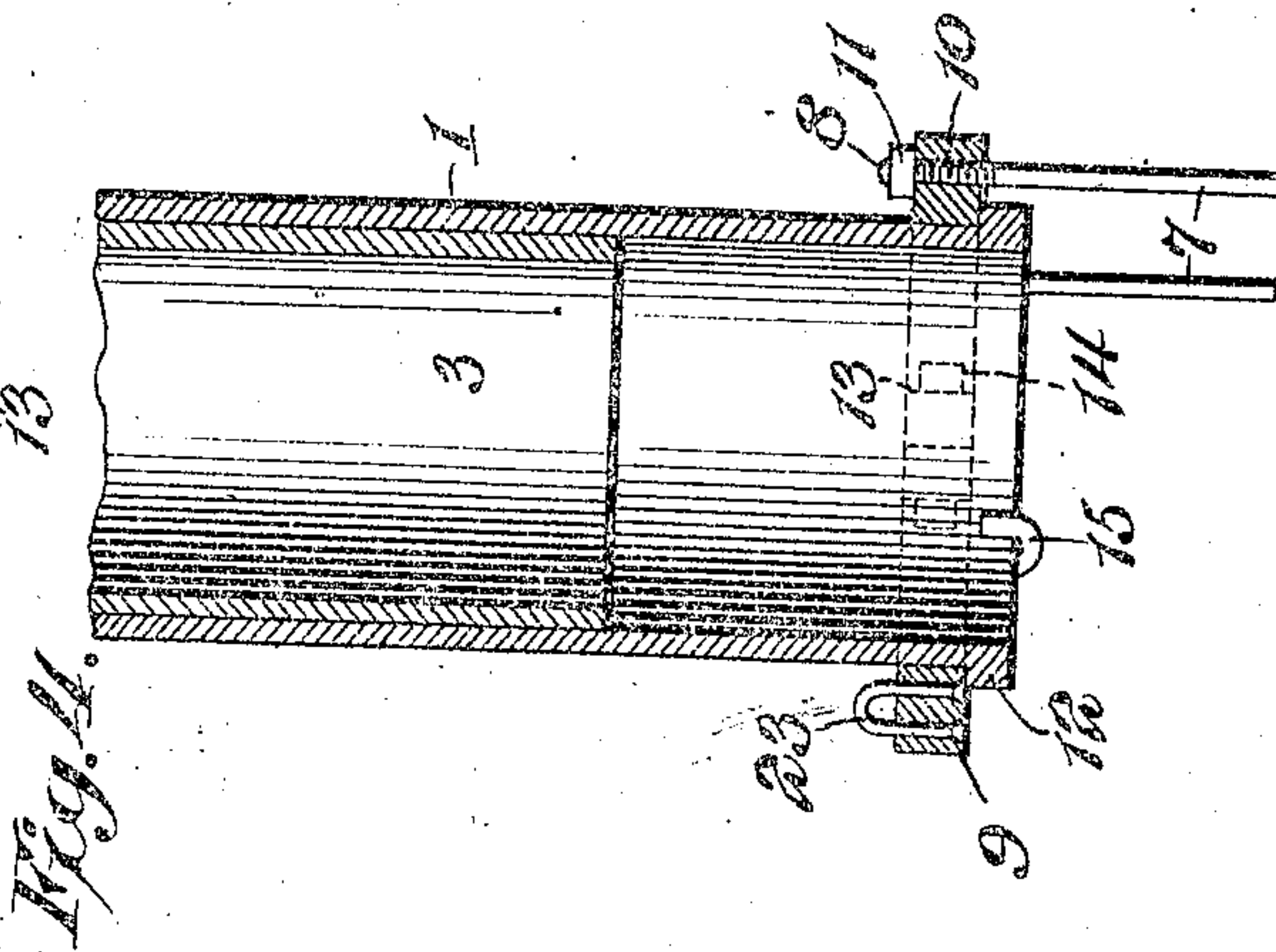
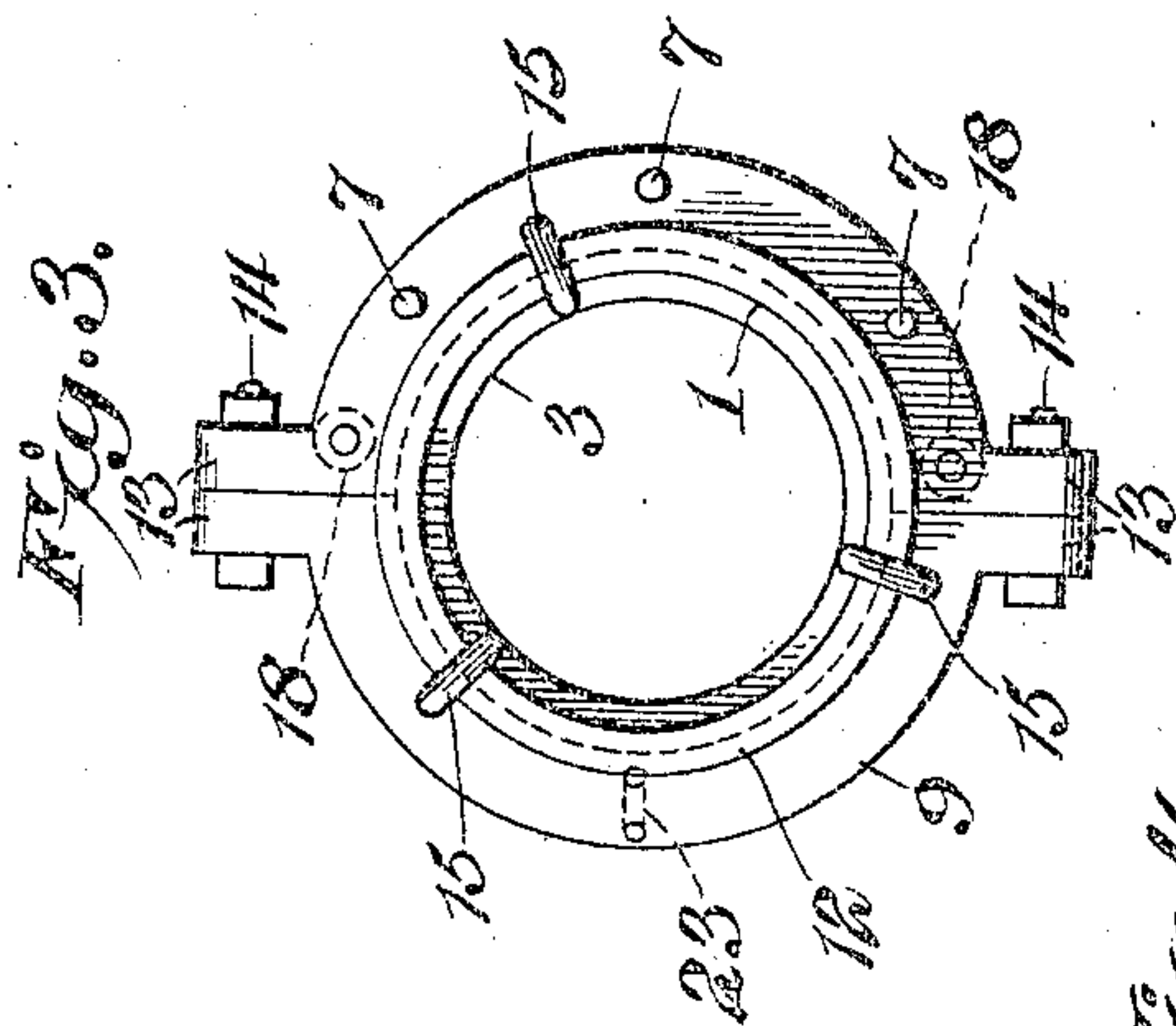


J. W. GREGORY.
PNEUMATIC GIN FEEDER.
APPLICATION FILED AUG. 11, 1908.

925,435.

Patented June 15, 1909.



Witnesses
Howard D. Orr.
J. F. Riley

John W. Gregory, Inventor
By *E. G. Siggers*
Attorney

UNITED STATES PATENT OFFICE.

JOHN W. GREGORY, OF COLDWATER, TENNESSEE.

PNEUMATIC GIN-FEEDER.

No. 925,435.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed August 11, 1908. Serial No. 447,997.

To all whom it may concern:

Be it known that I, JOHN W. GREGORY, a citizen of the United States, residing at Coldwater, in the county of Lincoln and State of Tennessee, have invented a new and useful Pneumatic Gin-Feeder, of which the following is a specification.

The invention relates to improvements in pneumatic conveyers for carrying the cotton from a wagon to the gin house.

The object of the present invention is to improve the construction of pneumatic conveyers for feeding cotton gins, and to provide a simple, inexpensive and efficient construction, adapted to enable the feed pipes of a pneumatic conveyer to loosen up the cotton in a wagon to enable the pneumatic conveyer to operate with great rapidity without the difficulty and inconvenience of scratching or raking the cotton loose by hand.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims here-to appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is an elevation of a portion of a pneumatic conveyer having a feed pipe, constructed in accordance with this invention. Fig. 2 is a horizontal sectional view, taken substantially on the line 2—2 of Fig. 1. Fig. 3 is an end view, showing the lower end of the feed pipe. Fig. 4 is a vertical sectional view, taken substantially on the line 4—4 of Fig. 2. Fig. 5 is a detail sectional view, illustrating the manner of securing the collar to the lower end of the feed pipe.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates a vertical telescopic feed pipe, constituting the lower section or member of the pneumatic conveyer 2 and having a slidable telescopic connection with the pipe or member 3, fitted within the upper end of the feed pipe, as clearly illustrated in Fig. 1 of the drawing. The feed pipe is vertically movable to raise and lower it to suit the amount of cotton 4 within a wagon 5, and

the section 3 is connected with the adjacent upper portion of the conveyer by means of a flexible section 6, adapted to permit the feed pipe to be moved horizontally in any direction so as to operate on the entire contents of the wagon 5.

In order to avoid the difficult and inconvenient operation of loosening the cotton by hand to permit the same to be operated on effectively by the pneumatic conveyer, the latter is equipped at its lower end with a series of vertical teeth 7, consisting of rods, having threaded upper portions 8, which pierce a sectional collar 9. The sectional collar 9, which encircles the lower end of the feed pipe, is provided with threaded perforations 10 for the reception of upper threaded portions 8, lock nuts 11 being preferably arranged on the upper threaded terminals of the teeth for preventing the same from accidentally becoming loose. The teeth formed by the vertical rods 7 are arranged in an arcuate series, and are located outside of the feed pipe and extend below the same. The teeth are adapted to loosen up the cotton to enable the same to be rapidly carried away by the pneumatic conveyer.

The lower end of the feed pipe is provided with an exterior annular rib 12, forming an upper horizontal shoulder against which the sectional collar 9 is fitted. The sections of the collar are provided with laterally extending lugs 13, which are pierced by horizontal connecting bolts 14 for securing the sections together. The collar is securely held on the shoulder or seat formed by the rib 12 by means of a plurality of hooks 15, extending around the rib 12 from the exterior thereof and engaging the lower edge of the feed pipe, as clearly shown in Fig. 5 of the drawing. The hooks are provided with threaded shanks 16, piercing the collar and secured to the same by nuts 17. The hooks detachably fasten the collar on the lower end of the feed pipe and prevent the collar from slipping when the conveyer is in use. The sectional collar is also equipped at opposite sides with vertical handles 18, extending upward from and carried by one of the sections of the collar, as clearly shown in Fig. 2 of the drawing. These handles are arranged in convenient position to enable the feed pipe to be firmly held and guided by the operator, who in the use of the conveyer moves the lower end of the feed pipe backward and forward over the cotton to cause the teeth

to loosen the same, so that the loose cotton may be readily sucked into the feed pipe through the pneumatic action of the conveyer.

5 The vertically movable member or feed pipe is counter-balanced by a weight 19, secured to one end of a rope or cable 20, or other suitable flexible connection and adapted to enable the feed pipe to be readily raised and lowered by the operator. The rope or cable 20 passes over a guide pulley 21, mounted in a suitable bracket or hanger 22, which depends from a horizontal portion of a conveyer. One end of the flexible connection is secured to the weight 19, and its other end is attached to an eye 23, consisting of a substantially U-shaped fastening staple, the sides or legs of which pierce the collar, as clearly shown in Fig. 4.

15 The horizontal top portion of the conveyer is designed to extend in the usual manner to a gin house (not shown).

The sectional collar enables the improvement to be readily applied to the feed pipe of an ordinary pneumatic cotton feeder or conveyer.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

30 1. An attachment for pneumatic cotton conveyers including a collar adapted to encircle the feed pipe of a conveyer and provided with means for engaging the same, teeth rigid with and depending from the collar and arranged to project beyond the feed pipe, and a handle carried by the collar.

35 2. An attachment for pneumatic cotton conveyers including a collar adapted to be arranged on the feed pipe of the conveyer,

hooks adjustably secured to and projecting 40 from the bottom for engaging the lower edge of the feed pipe, and a series of teeth piercing the collar and secured to the same.

3. The combination with the feed pipe, of a conveyer provided at its ends with an exterior shoulder, of a collar encircling the feed pipe and seated on the said shoulder, hooks piercing the collar and engaging the lower edge of the feed pipe, and a series of teeth consisting of rods extending below the feed pipe and having upper portions piercing the collar. 50

4. The combination with the feed pipe of a conveyer provided at its ends with an exterior shoulder, of a sectional collar encircling the feed pipe and seated on the said shoulder, hooks piercing the collar and engaging the lower edge of the feed pipe, and a series of teeth consisting of rods extending below the feed pipe and having upper portions piercing the collar, and opposite handles extending upward from the collar and carried by one of the sections thereof. 55

5. The combination of a conveyer having a vertically movable feed pipe, a collar secured to the lower end of the feed pipe and provided with depending teeth and having an eye, a counter-balancing weight, and a flexible connection having the weight secured to one end of it and connected at its other end to the eye of the collar. 60

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN W. GREGORY.

Witnesses:

M. F. STORY,
JOHN T. WEST.