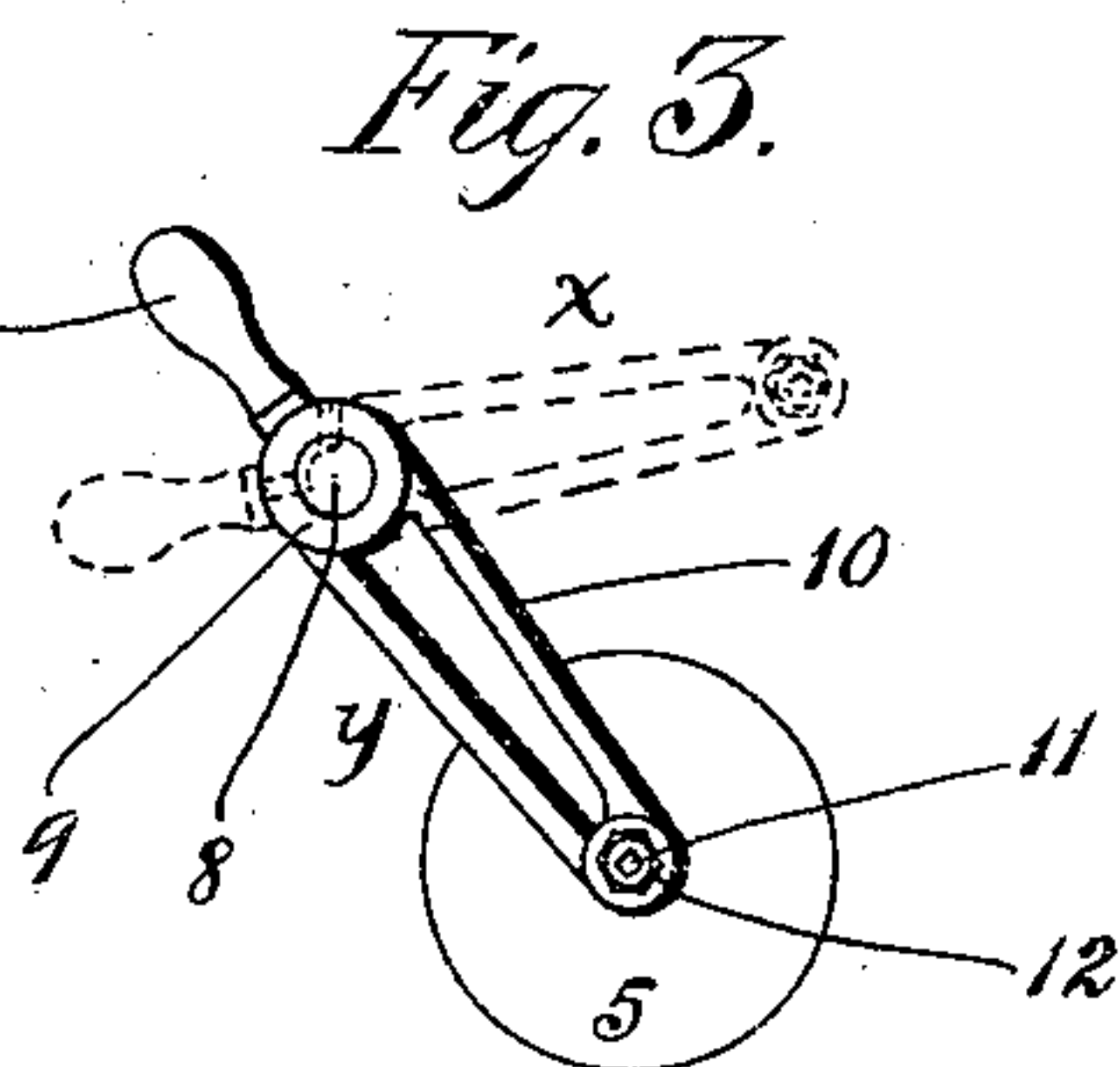
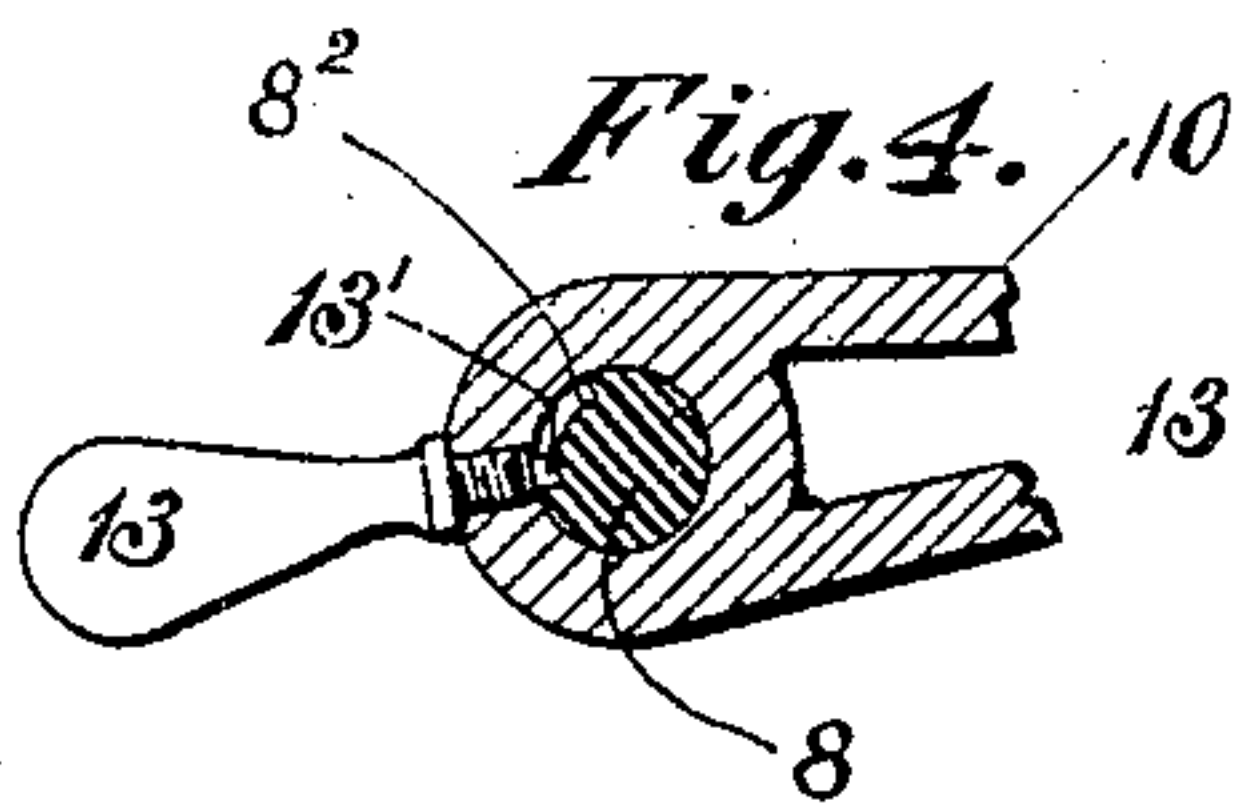
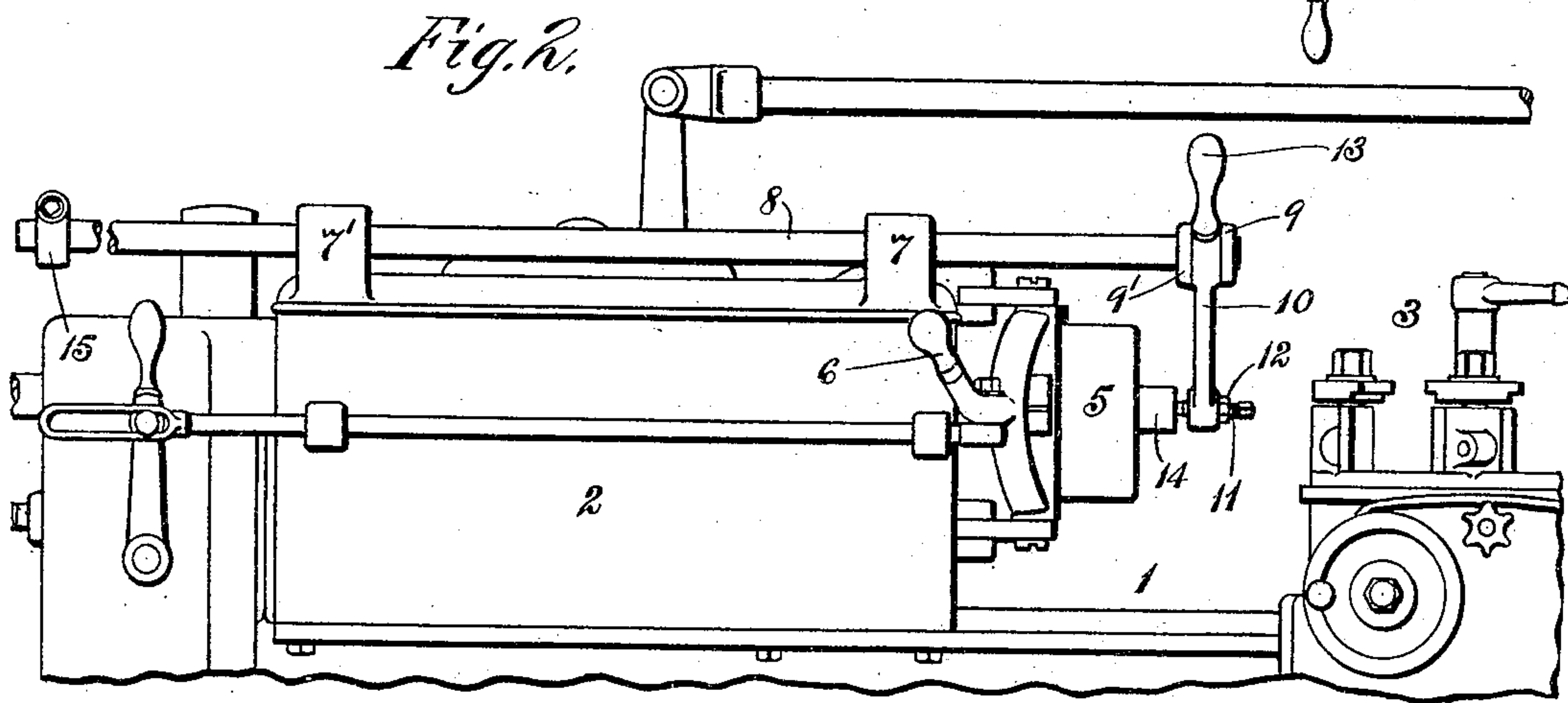
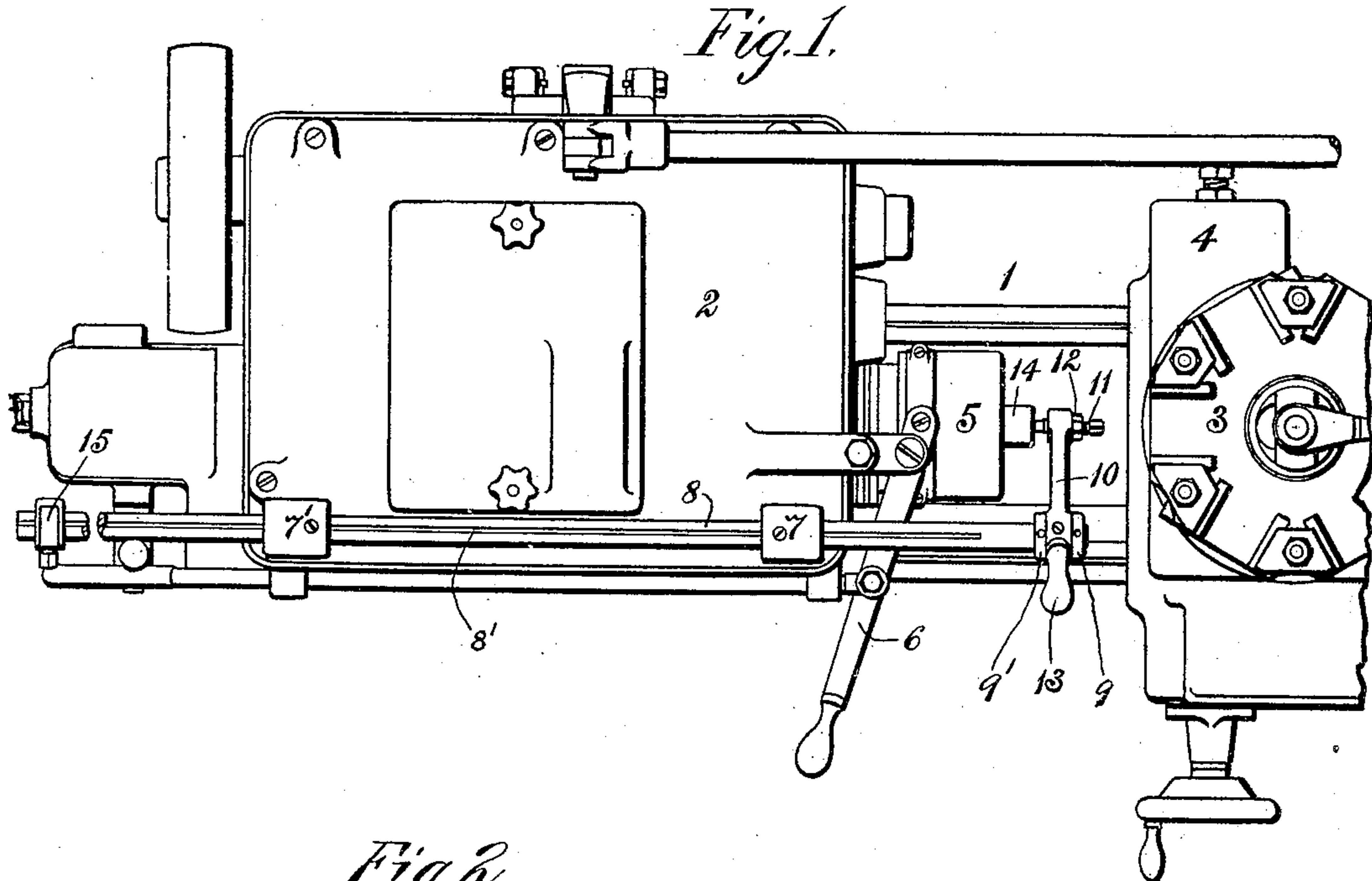


B. M. W. HANSON.  
FEED ARRESTING DEVICE.  
APPLICATION FILED MAR. 19, 1907.

945,454.

Patented Jan. 4, 1910.



Witnesses:

F. H. Elliott

J. H. Anderson.

Inventor:

B. M. W. Hanson,  
By his Attorney,

*[Signature]*



# UNITED STATES PATENT OFFICE.

BENGT M. W. HANSON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO PRATT & WHITNEY COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF NEW JERSEY.

FEED-ARRESTING DEVICE.

945,454.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed March 19, 1907. Serial No. 363,295.

*To all whom it may concern:*

Be it known that I, BENGT M. W. HANSON, a citizen of Sweden, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Feed-Arresting Devices, of which the following is a specification.

This invention relates to devices for arresting the feed of a rod through the tubular spindle and chuck of a metal-working or other machine, and has for its object the provision of an improved stop slidable in bearings of one of the stocks of the machine, preferably the head-stock, although the invention is not limited in the respect named, and also capable of rocking movement.

A further object of the invention is the provision of a slidable rod, mounted as described and carrying a rocking arm at one end, said arm being provided with an adjustable stop proper, and the rod being limited in its forward sliding movement by an adjustable collar or other device which will engage one of the bearings.

In the accompanying drawings, Figure 1 is a plan view of a turret lathe to which my invention is applied. Fig. 2 is a side elevation of said lathe, and Fig. 3 is a detail view, showing by full and dotted lines the manner in which the invention operates; and Fig. 4 is a sectional detail hereinafter described.

Like numerals designate similar parts throughout the several views.

Referring to the drawings, the numeral 1 denotes the frame of the machine, 2 the head-stock, 3 the turret, 4 the cross-slide, 5 the chuck carried by the usual tubular spindle (not shown) and 6, a lever for manually operating said chuck, these elements constituting no part of the present invention.

Designated by 7, 7' are tubular bearings, shown in the present instance rising from the head-stock adjacent to the end, and on one side of said head-stock, although they may be carried by another part of the machine if desired. In these bearings is mounted for sliding movement a rod 8, prevented from rocking by a spline and groove connection 8'. Mounted at its hub between collars 9—9', at the inner end of said rod is an arm 10 carrying at one end a screw 11, a jam-nut 12 being employed for locking said screw after it has been adjusted as required, and

said screw constituting a stop member or a "stop-proper" for limiting the projection of the stock-rod through the chuck. In the end of the rod 8 is a groove 8<sup>2</sup> for receiving a stop 13' carried by a handle 13 by which the rod 8 may be slid back and forth in the bearings 7, 7' the swinging movement of the stop-arm or feed-arresting member 10 from its inoperative position shown by dotted lines at *x* to the operative position illustrated by full lines at *y* in Fig. 3, bringing the screw 11 in line with the longitudinal axis of the chuck, and being shown in said figure in engagement with the end of a stock-rod 14.

A collar 15 (shown as a split one) is adjustably secured in any desired manner to the rod 8, and said collar acts as a stop to engage the rear bearing 7', and thus limit the forward movement of the rod, the rearward throw of said rod being controlled by the inner collar 9' when it engages the bearing 7.

It will be evident that the rod 8 in the present case is in parallelism with the axis of motion of the chuck 5.

Any desired feed-mechanism, either automatic or manual, may be employed for advancing the stock-rod through the tubular spindle and chuck, and in the operation of the invention when the chuck-jaws are open and the feed is about to take place the handle 13 is grasped and the rod 8 is slid in its bearings to bring the stop-arm 10 forward, and the arm 10 is then turned to bring the end of said arm into line with the axis of the chuck. Stop 15 may be adjusted to any desired point along the rod to limit the extent of the feed by engaging bearing 7' and by grasping the handle 13, the stop-proper may be thrown in or out as desired.

When the feed is accomplished handle 13 is grasped and the arm 10 is turned and the rod 8 is slid in its bearings to throw said arm 10 to a position out of the way of the stock-rod and the chuck.

Changes may be made in the details of the invention and the screw 11 may be omitted, although it is preferably employed.

Having thus described the invention, what I claim is:

1. The combination of an endwise movable rod provided with means for positively preventing the turning thereof as the same moves endwise and also provided with means adjustably mounted for limiting the

movement thereof, a feed arresting member connected with said rod for swinging movement and supporting means for said rod.

2. The combination, with a chuck, of  
5 bearing means, a rod parallel to the axis of motion of said chuck slidable in said bearing means; a swinging stop-arm on the inner end of the rod and constituting a feed-arresting member; and a stop adjustable  
10 along the rod, and serving to limit the forward movement thereof by engaging one of the bearing means.

3. A feed-arresting device comprising a slidable rod having a groove, a stop-arm sleeved on said rod, and a device carried by 15 said arm, entering said groove, and limited in its movement by engaging opposite walls of said groove.

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

BENGT M. W. HANSON.

Witnesses:

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JOHN D. WOOD.