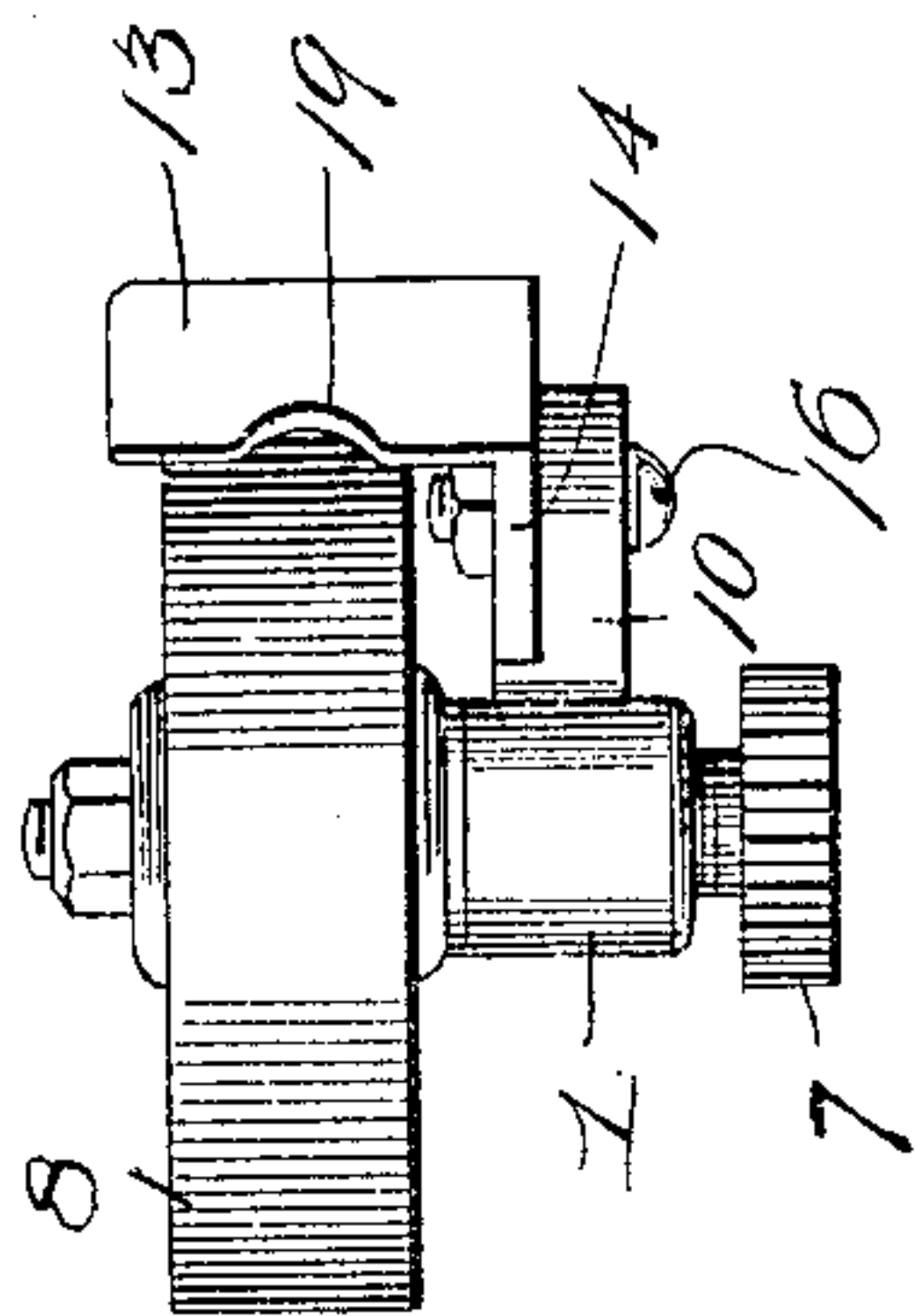


DRILL REST FOR GRINDING MACHINES.

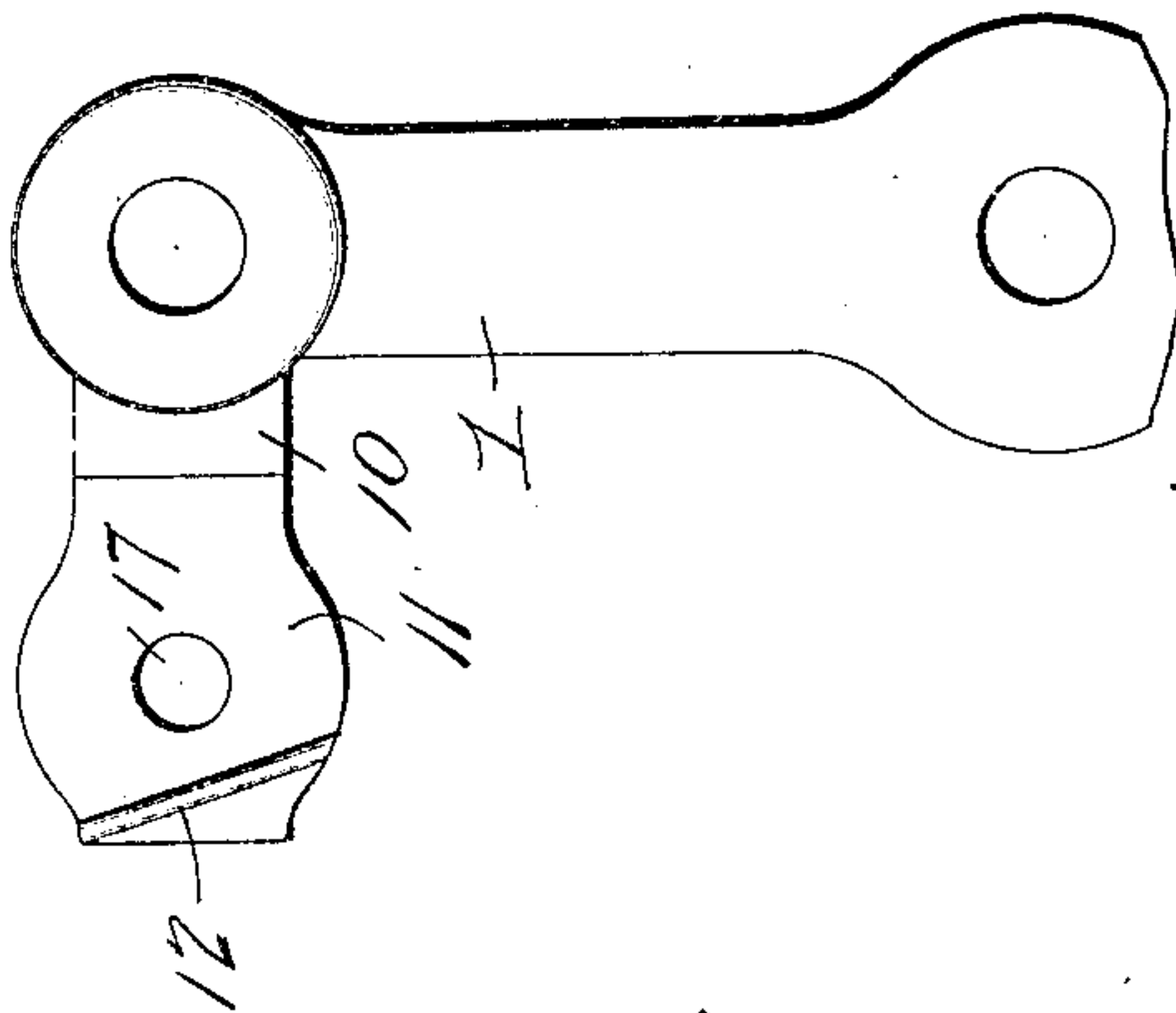
APPLICATION FILED FEB. 5, 1908.

Patented July 13, 1909.

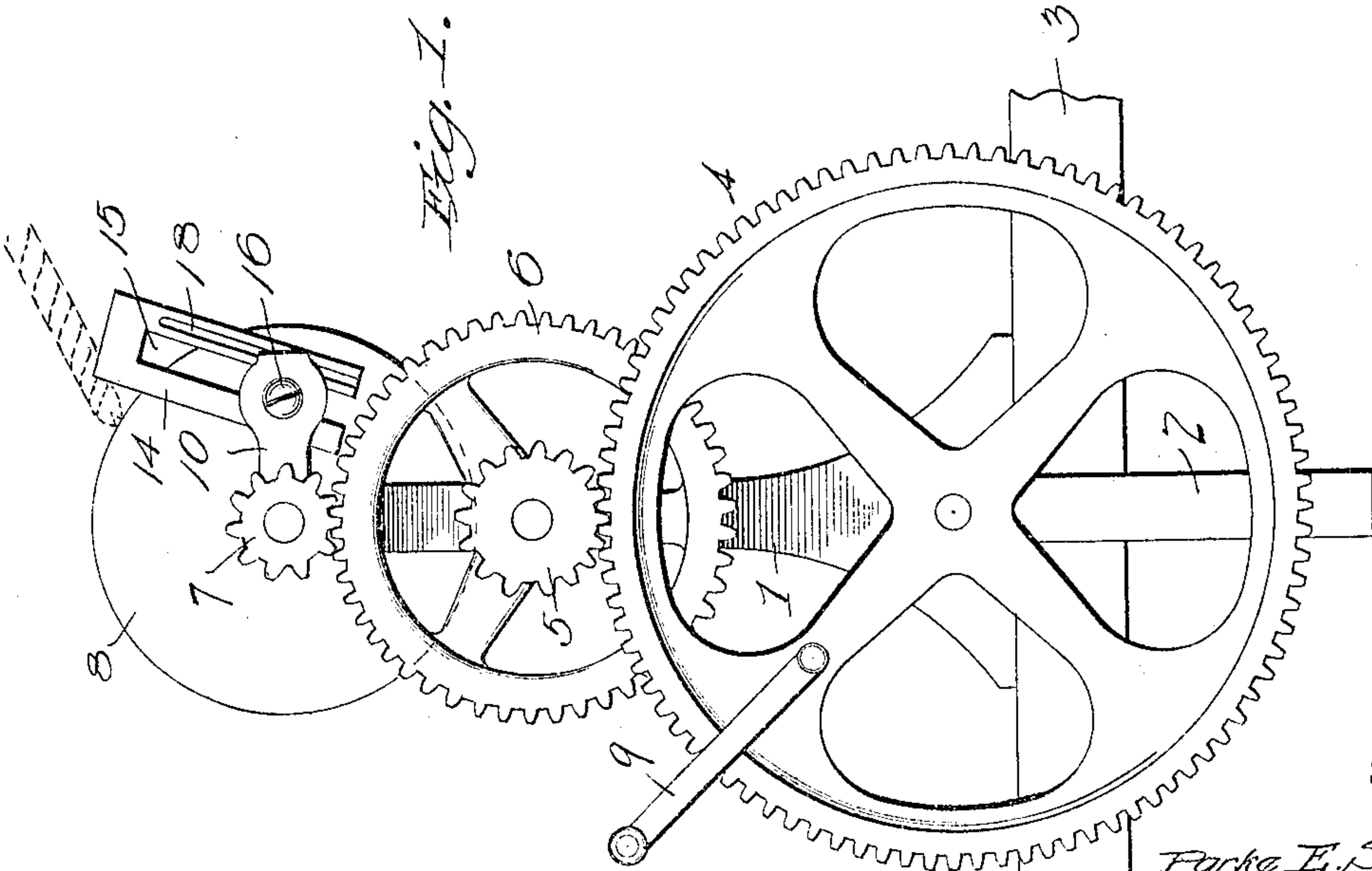
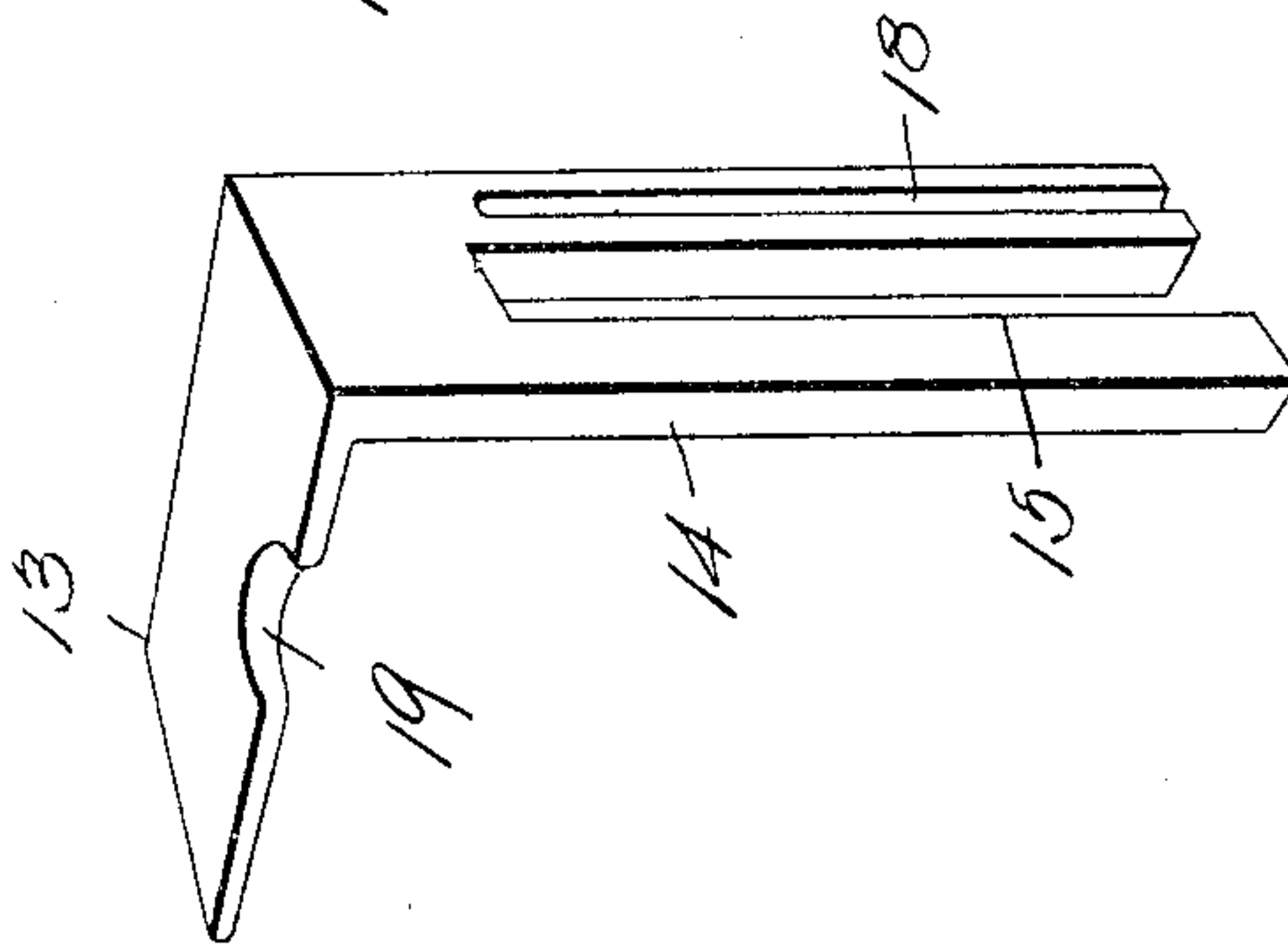
927,757.



2. Box



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Witnesses

Witnesses
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Respectfully,
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UNITED STATES PATENT OFFICE.

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DRILL-REST FOR GRINDING-MACHINES.

No. 927,757.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed February 5, 1908. Serial No. 414,374.

To all whom it may concern:

Be it known that I, PARKE E. SHEE, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented a certain new and useful Drill-Rest for Grinding-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to drill rests for grinding machines and the object thereof is to provide a rest for the purpose stated embodying means whereby it is adapted to be securely fastened to the frame standard of the grinding machine and rendered adjustable relatively to the working or grinding face of the wheel or rotary grinding element, without impairing its efficiency, the rest being especially adapted for use in correctly supporting a twist drill at the proper angle and varying such angle to produce the required bevel and clearance.

To the above end the invention consists in the novel construction and arrangement herein fully described, shown in the drawings and claimed.

In the accompanying drawings:—Figure 1 is a front elevation of a manually operated grinding machine, showing the drill rest mounted thereon. Fig. 2 is a top plan view of a portion of the same. Fig. 3 is an enlarged perspective view of the rest detached, and Fig. 4 is an enlarged elevation of the upper portion of the frame standard, showing the construction of the bracket arm or extension forming part of the invention.

The grinding machine for which the drill rest is designed embodies a frame standard 1 provided with a bench clamp 2 by which the machine is secured to a bench or table shown at 3. The frame standard affords bearings for the shafts of a train of speeding up gears 4, 5, 6 and 7, and to the shaft of the last mentioned gear 7 is connected the rotary grinding element or wheel 8, while to the first mentioned gear 4 is attached an operating crank handle 9.

In carrying out the invention the upper end of the frame standard 1 is provided with a laterally extending bracket arm 10 the inner face of which is recessed as at 11 to form a flat vertical abutment surface for the shank of the drill rest as will appear. The surface 11 is flat with the exception of an

oblique rib 12 which projects from the surface 11 and sets slightly oblique to the vertical as shown in Fig. 4.

The drill rest is angular or L-shaped as shown in Fig. 3, comprising the body 13 and shank 14 which bears against the abutment surface of the bracket arm. The shank 14 is slotted lengthwise as at 15 to receive a clamp 16 which may consist of a screw or bolt and nut as indicated in Figs. 1 and 2, passing through the slot in the shank and also through a hole 17 in the bracket arm 10. The slotted shank 14 permits the body of the rest to be moved up and down and fastened at any point.

One of the legs of the shank formed by the slot is provided with a longitudinal groove 18 into which the rib 12 fits, and when the clamping screw or bolt 16 is tightened the rib 12 prevents the shank of the rest from turning thus holding the drill rest perfectly rigid on the frame standard. The body of the rest is provided in one edge with a drill seat or notch 19 in which the drill is held as indicated in Fig. 1. In this way the point of the drill may be conveniently held against the working face of the grinding wheel to impart the requisite bevel thereto and by giving a slight rocking movement to the drill the grinding operation may be nicely regulated to give the proper clearance to the point of the drill.

The drill rest above described may be applied either to hand or power grinding machines.

I claim:

A hand-operated grinding machine comprising a frame, a grinding wheel having its shaft journaled in said frame, multiplying gears for driving the grinding wheel shaft, a bracket arm on said frame having an oblique rib projecting from one side thereof, a drill rest overhanging the grinding wheel and provided with a drill-holding notch, a shank having a groove extending lengthwise thereof and forming a guide-way for the rib on the bracket arm, and means for clamping the drill rest against the bracket arm.

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

PARKE E. SHEE.

Witnesses:

S. L. BURG,
CHAS. W. EABY.