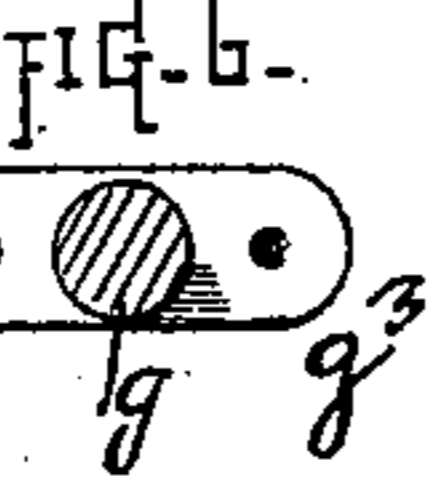
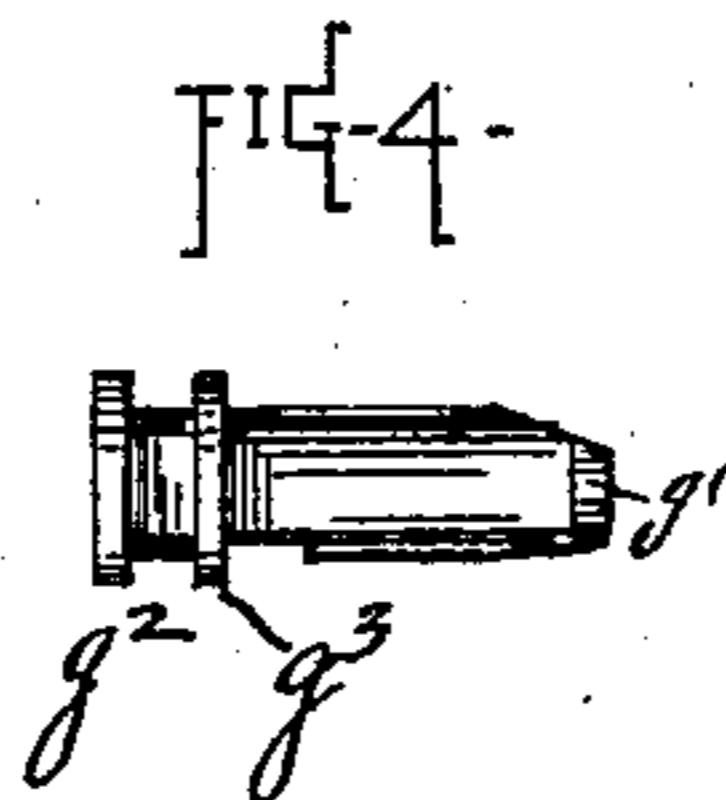
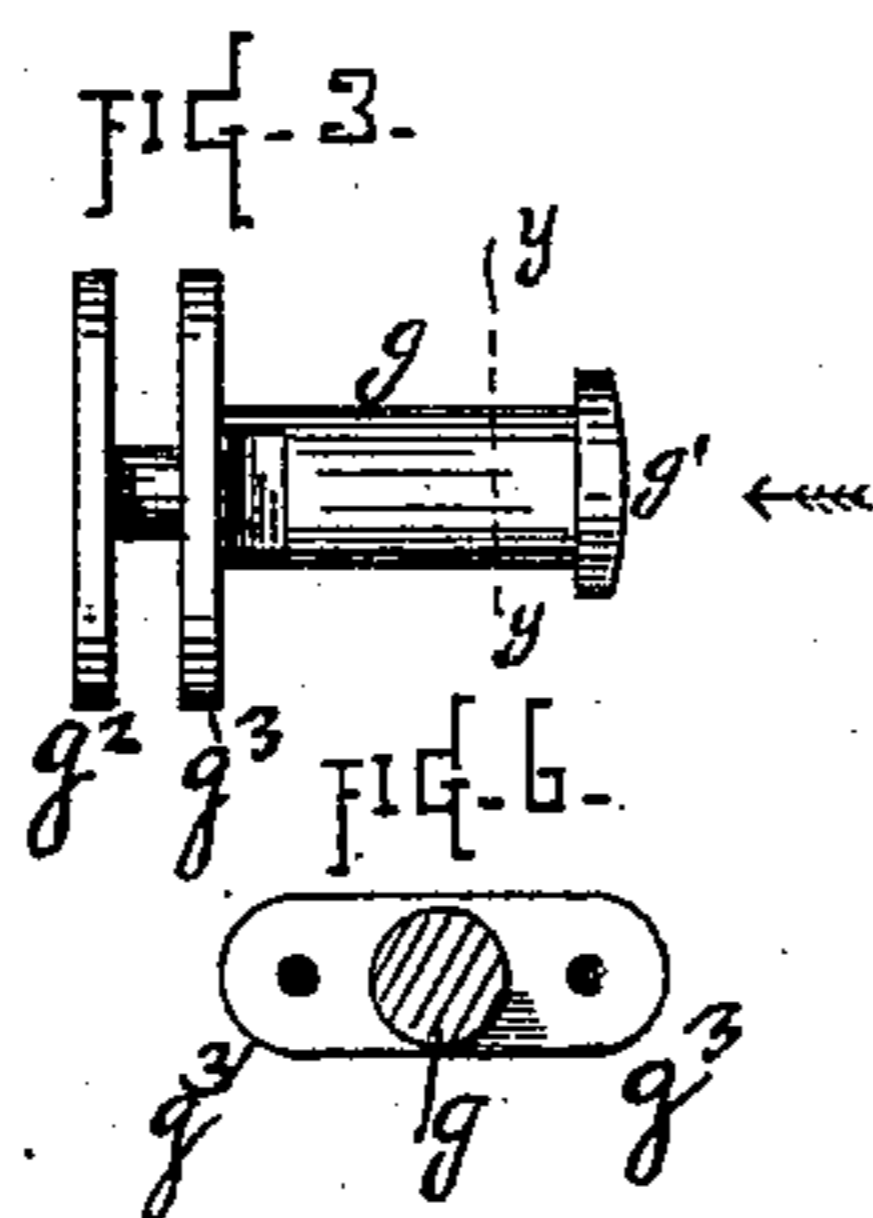
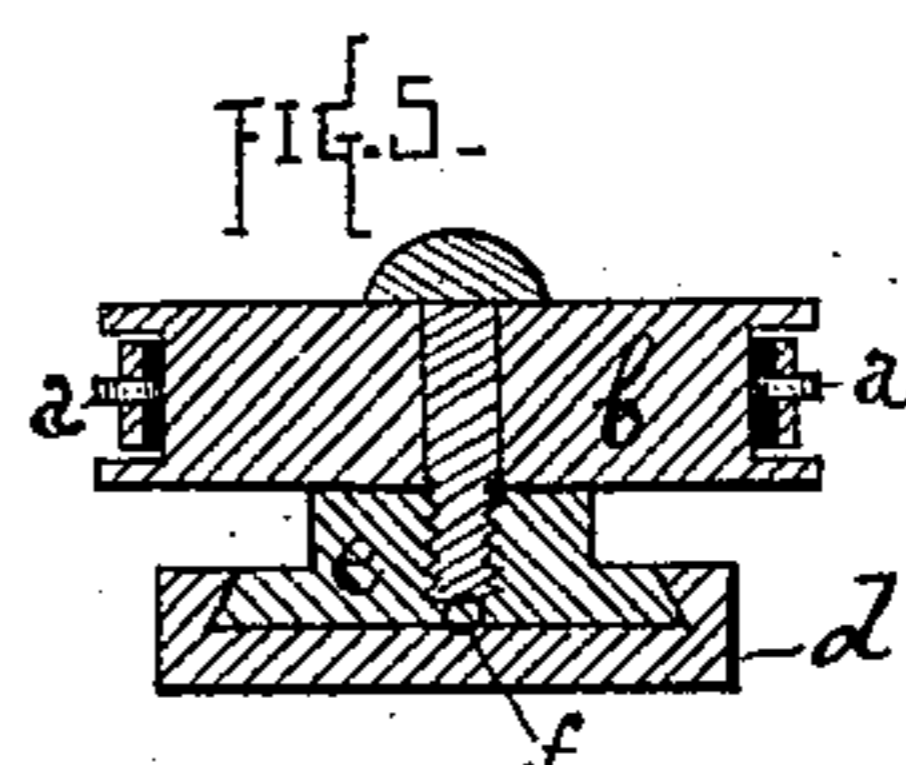
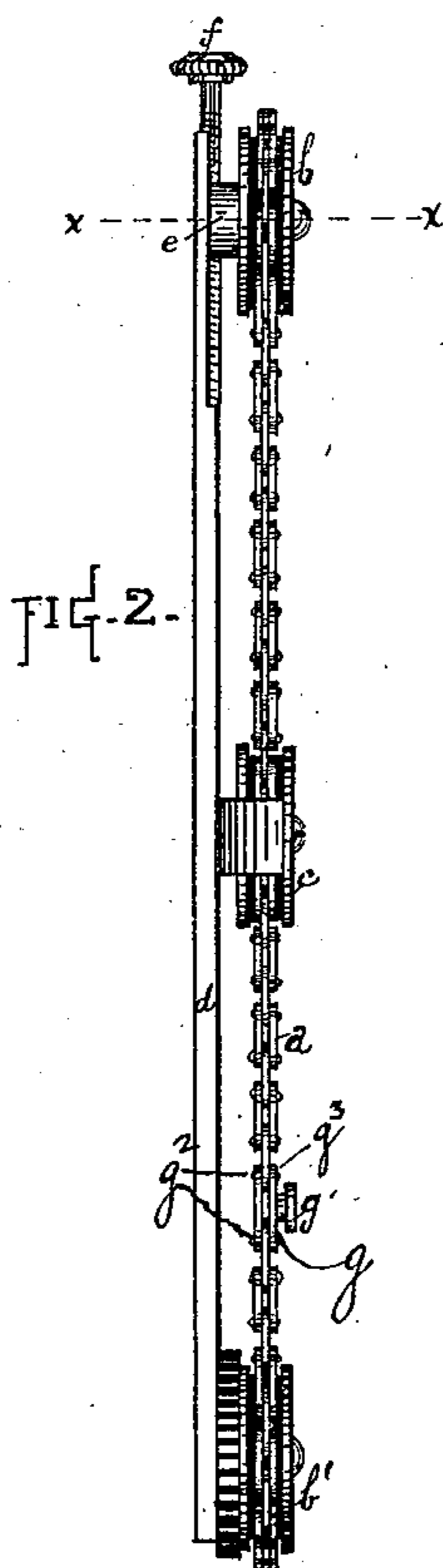
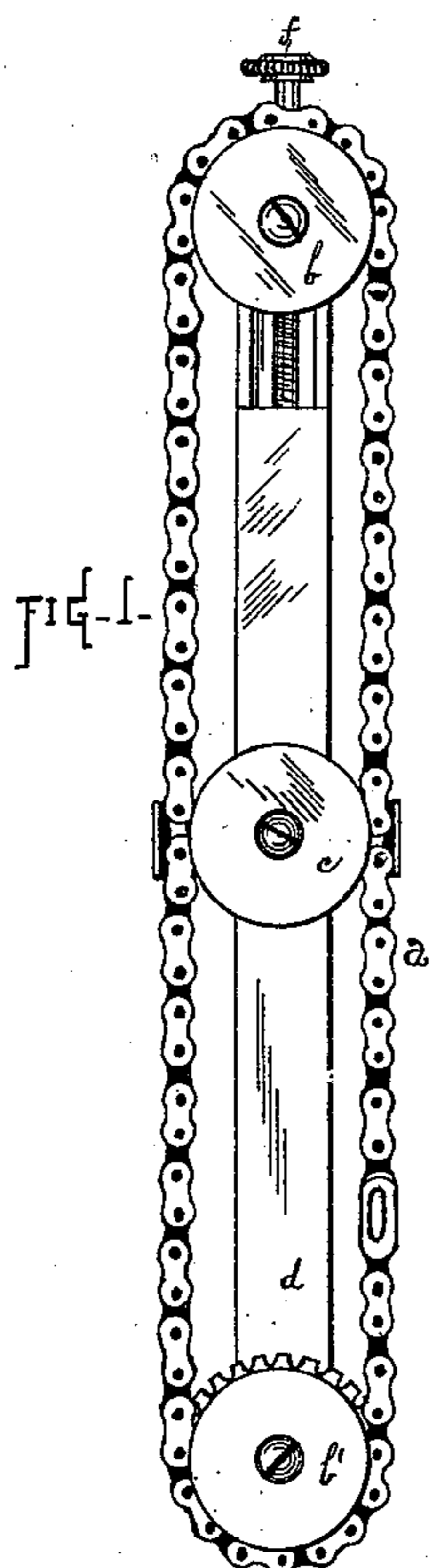


B. S. ROY.  
CARD-GRINDING MACHINE.

No. 184,909.

Patented Nov. 28, 1876.



WITNESSES:

*Robt. F. Gaylord*  
*Wm. F. Dooley*

INVENTOR:

*Basil S. Roy*  
By *Wm. E. Simonds*  
Att'y.

# UNITED STATES PATENT OFFICE.

BOZIL S. ROY, OF ROCKVILLE, CONNECTICUT.

## IMPROVEMENT IN CARD-GRINDING MACHINES.

Specification forming part of Letters Patent No. 184,909, dated November 28, 1876; application filed August 24, 1876.

*To all whom it may concern:*

Be it known that I, BOZIL S. ROY, of Rockville, in the county of Tolland and State of Connecticut, have invented certain new and useful Improvements pertaining to Card-Grinding Machines, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure-1 is what may be called a front view of the parts embodying my improvements. Fig. 2 is a top view. Fig. 3 is a view of the engaging-pin. Fig. 4 is a view of same. Fig. 5 is an enlarged sectional view on plane  $xx$ . Fig. 6 is a view on plane  $yy$ , looking toward the link-flanges.

Letters Patent No. 173,672, dated February 15, 1876, for improvement in card-grinding machines, were granted to me, and the devices herein claimed are improvements on the mechanism shown in said patent.

The feature of improvement and invention is an improvement in the shape and construction of the engaging-pin.

The letter  $a$  denotes the chain running on the pulleys  $b$   $b'$ , and having an intermediate guide-pulley,  $c$ . All three are affixed to the frame-piece  $d$ , so that the whole can be assembled, and, as a whole, introduced into the tube in which they work. Pulley  $b$  is not fixed rigidly to piece  $d$ , but to cross-head  $e$ , which

slides in a dovetail groove in piece  $d$ , and the position of this pulley is regulated by screw  $f$ , running through the cross-head.

Difficulty has been experienced in keeping the chain from disengaging with the mortised arm, which is caused to reciprocate by the chain. To cure this defect I make the pin  $g$  with a T end,  $g'$ , with two sides slabbed off, so that this flanged or T end will go through the mortise in one position; but when revolved a quarter-turn will not go back through the mortise.

The head or T end is introduced through the mortise in the arm when the pin lies across the screw  $f$ , at which time the length of the T end lies in the same direction with the mortise in the arm. When the pin moves away from the pulley  $b$ , it is practically rotated a quarter-turn, while the arm remains in vertical position. The pin  $g$  has at its base the flanges  $g^2$   $g^2$ , pierced by eyes  $g^3$   $g^3$ , through which pins are introduced to connect them to the links of the chain.

I claim as my invention—

In combination, the chain  $a$  and pin  $g$ , having the T end.

BOZIL S. ROY.

Witnesses:

E. C. COLBY,  
GELON W. WEST.