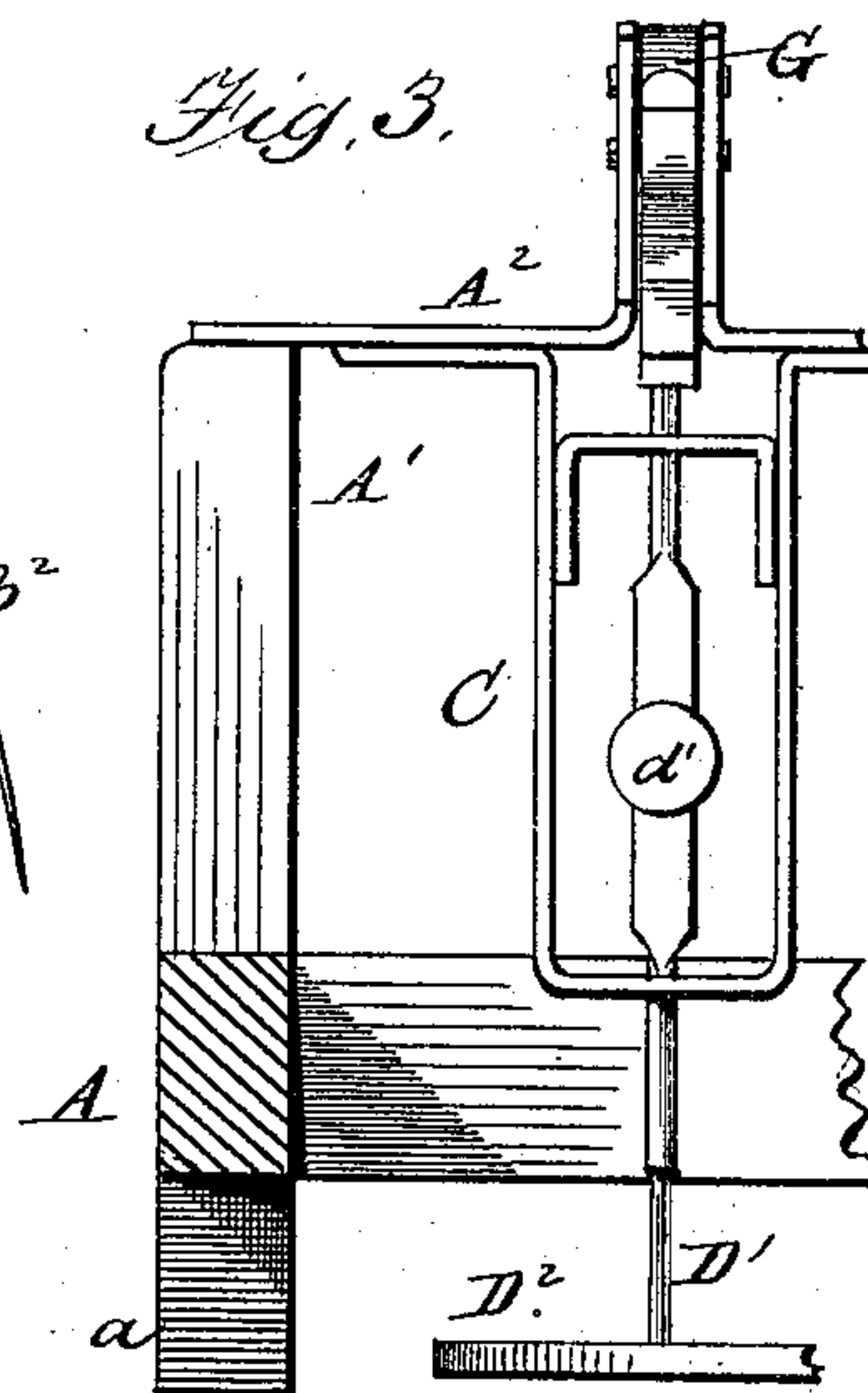
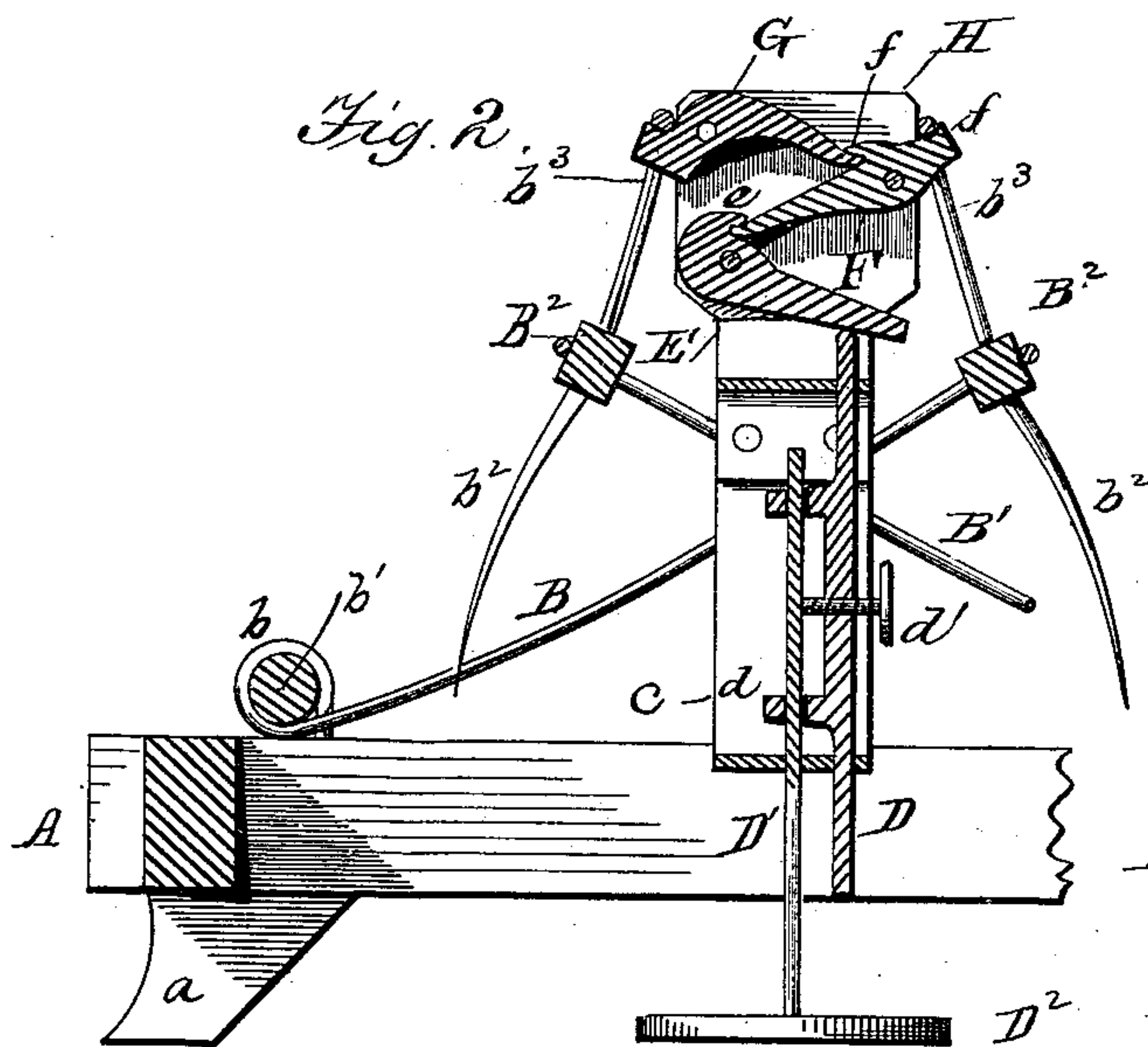
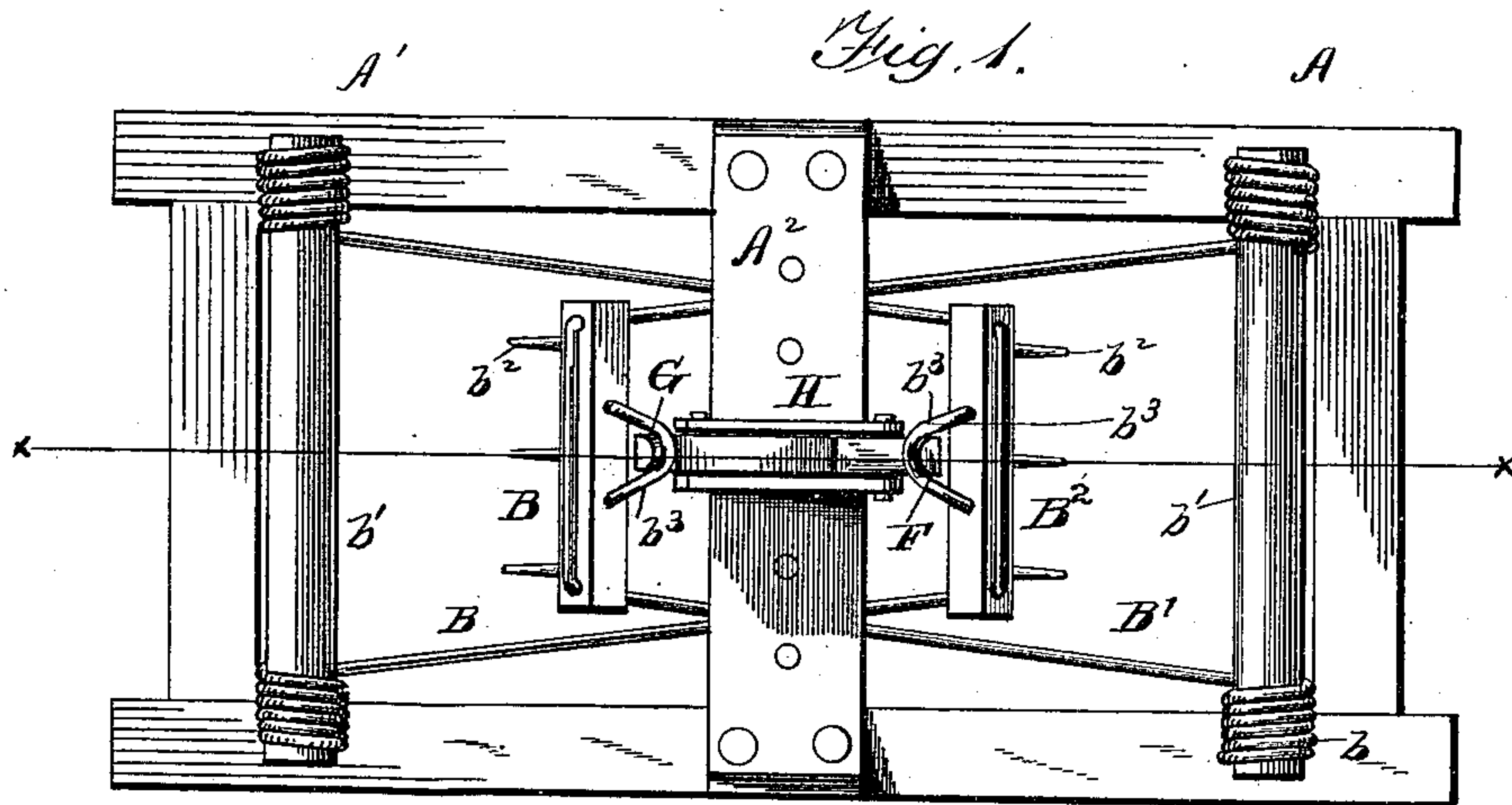


(No Model.)

E. BILLS.  
MOLE TRAP.

No. 332,133.

Patented Dec. 8, 1885.



attest:  
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# UNITED STATES PATENT OFFICE.

ELIAS BILLS, OF MACY, INDIANA.

## MOLE-TRAP.

SPECIFICATION forming part of Letters Patent No. 332,133, dated December 8, 1885.

Application filed September 22, 1885. Serial No. 177,861. (No model.)

*To all whom it may concern:*

Be it known that I, ELIAS BILLS, a citizen of the United States, residing at Macy, in the county of Miami and State of Indiana, have  
5 invented certain new and useful Improvements in Mole-Traps, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to that class of mole-traps in which the fatal mechanism is set into  
10 operation by the passage of the mole in the ground; and the novelty consists in the construction, arrangement, and adaptation of parts, as will be more fully hereinafter set  
15 forth, and specifically pointed out in the claims.

I provide spears or darts which approach the animal from opposite directions simultaneously, and I provide such holding and tripping mechanism that both these sets of spears  
20 are set in motion at the same moment.

The invention is illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a top plan view. Fig. 2 is a central longitudinal section, showing both sets of spears set for use and held by peculiar triggers. Fig. 3 is a transverse section with parts  
25 in elevation.

Referring to the drawings, A designates the  
30 main frame, having short supports  $a$ , and standards  $A'$ , with a transverse cross-bar,  $A^2$ . These parts constitute the frame of the machine. Secured at  $b$  to the bars  $b'$ , arranged transversely near each end of the main frame, are  
35 two spring-frames, B and B', which extend in opposite directions past the center of the main frame and the standards  $A'$  thereof. Each spring-frame carries a head,  $B^2$ , each armed with independent spears  $b^2$ , curved to incline  
40 inward. When in a normal position, these spears interlock with each other beneath the center of the machine. When the trap is set, they occupy the position shown in Fig. 2, each being held against its spring force by a separate trigger. From the top of each spear-head  
45  $B^2$  extends a loop or hook,  $b^3$ . The loop  $b^3$ , which controls the frame B', is engaged over one end of a trigger, G, pivoted at  $g$  in the vertical central frame, H, the opposite end of said  
50 trigger G being engaged in a hook,  $f$ , formed in the upper surface of a trigger, F, also pivoted in the frame H, but extending in a direc-

tion contrary to that of the trigger G. This contrary arrangement not only allows the loop  
55  $b^3$ , which controls the spring-frame B, to be engaged over its projecting arm  $f'$ , but throws its opposite ends within reach of the hook  $e$  of a main trigger, E, pivoted in the frame H in a position corresponding to that of the trigger G.

C designates a frame depending from the cross-head  $A^2$ , and within the horizontal plates  
60  $c$  and  $c'$  of this frame work freely the adjustable slides D and D'. The slide D has perforated ears  $d$ , through which the slide D' operates, and a set-screw,  $d'$ , allows the adjustment  
65 of the parts relatively to a disk or plate,  $D^2$ , below and to the free end of the trigger E above.

The free ends of the triggers F and G being engaged in their respective notches, and the  
70 free end of the main trigger E being supported by the adjustable slide D D', and the disk D of said slide being allowed to rest upon or near the ground over the path of the mole, and the loops  $b^3$  being engaged over their respective trigger-arms, the trap is set for use. The  
75 power of the frame B' is controlled by the trigger G being engaged with the trigger F, while the frames B and B' are controlled by the engagement of the trigger F with the trigger E,  
80 and the latter with the slide D. The passing mole raises the disk  $D^2$ , which action liberates the trigger F from its engagement with the hook  $e$  by the elevation of the free arm of the  
85 main trigger E, and both frames B B' are instantly released. Their spring force throws the spears into the soil directly beneath the disk  $D^2$  to catch and impale the mole.

The operation will be obvious.

I have described the invention as constituting a mole-trap; but many of the important  
90 features will be understood to be applicable to other traps. For instance, the two sets of spears approaching a given point from different directions, and their respective interlocking  
95 triggers, may be applied with advantage to animal-traps of other specific constructions.

Modifications in various of the details may be made within wide limits without departing from the principle or sacrificing the advantages of the invention.

What I claim as new is—

1. The combination, in an animal-trap, of two sets of spears arranged to approach a

given point from different directions, and their  
impelling spring-arms overlapping each other  
and extending past the center of the main  
frame in opposite directions to the spear-heads,  
5 with means for holding said arms in a set po-  
sition, a main trigger, as E, and means for  
tripping said main trigger, as set forth.

2. The combination, with the spring-frames  
B B', their cross-heads B<sup>2</sup>, spears b<sup>2</sup>, and loops  
10 b<sup>3</sup>, of the trigger G, the trigger F, having hook  
f, the main trigger E, having hook e, and  
means for tripping the several triggers simul-  
taneously, as set forth.

3. The mole-trap described, having the

spring-frames B B', each frame extending past 15  
the center of the machine from the point of its  
attachment thereto to a spear-head, as shown,  
and having spears b<sup>2</sup> and loops b<sup>3</sup>, the trig-  
gers E F G, the slides D D', having adjusting-  
screw d', and the disk D<sup>2</sup>, all combined and 20  
operating as and for the purpose set forth.

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

ELIAS BILLS.

Witnesses:

DAVID C. STAR,  
JOHN BILLS.