

No. 607,691.

Patented July 19, 1898.

J. KNOOP.
ANIMAL TRAP.

(Application filed Sept. 30, 1897.)

(No Model.)

Fig. 1.

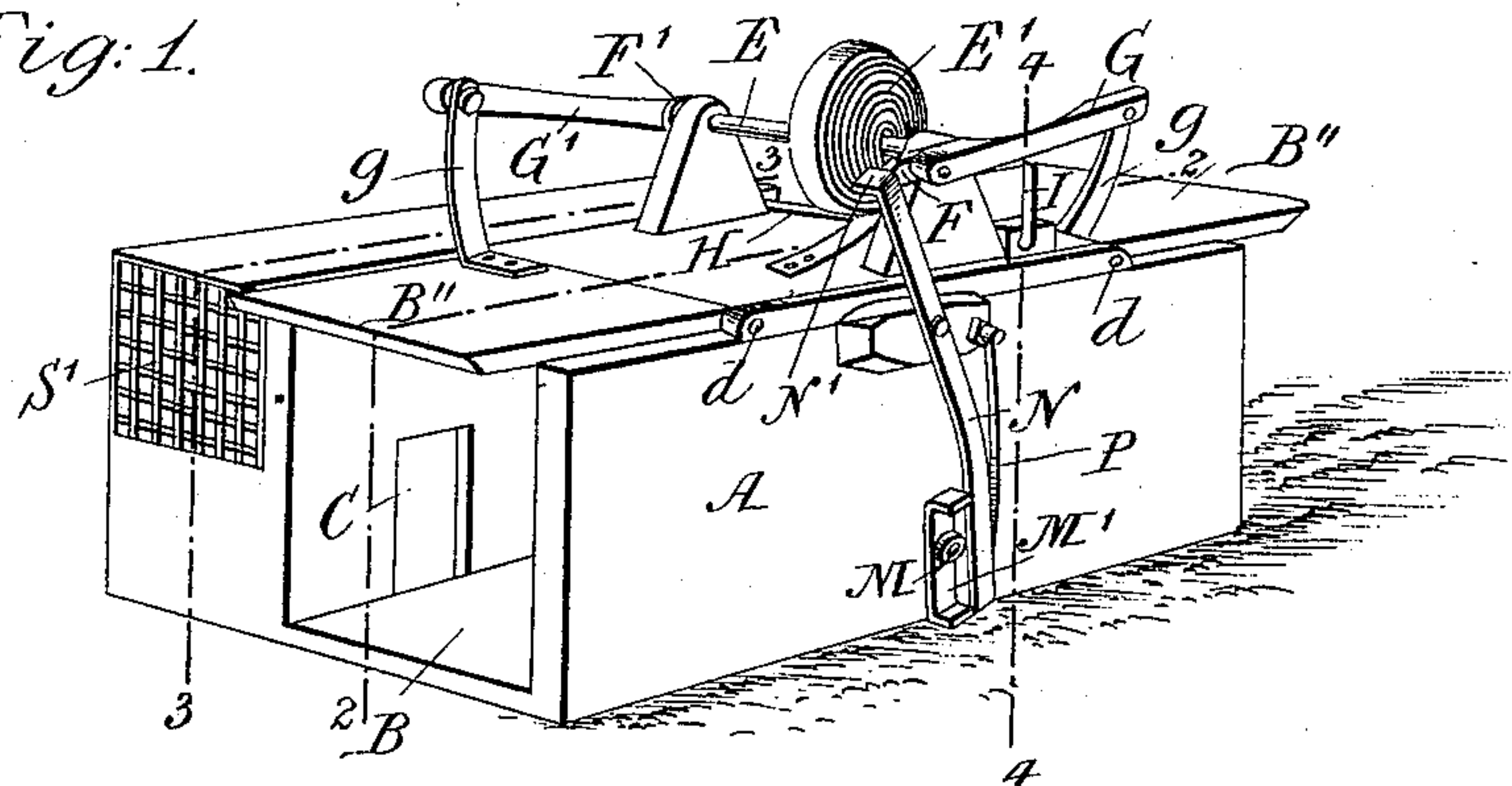


Fig. 2.

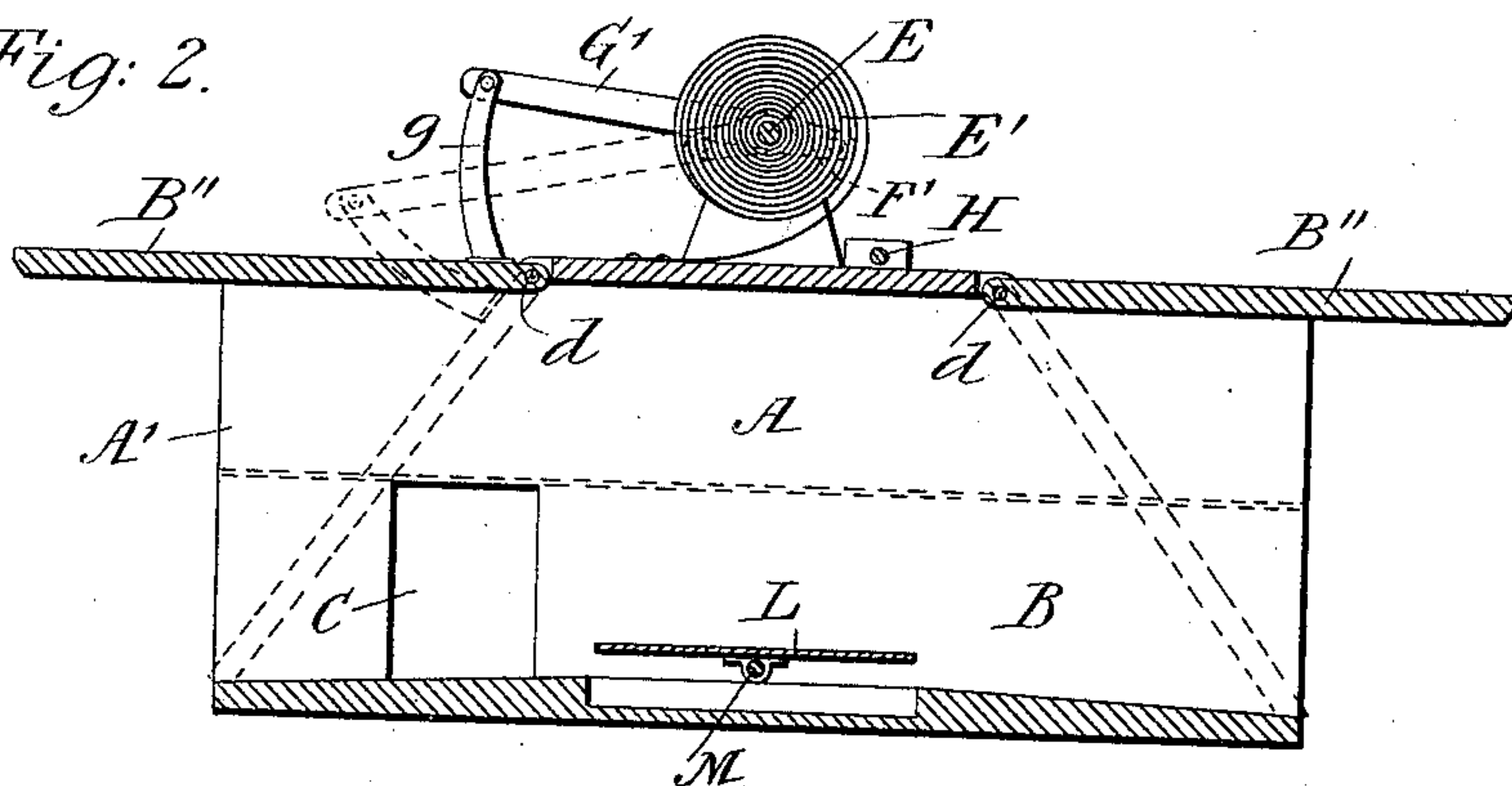


Fig. 3.

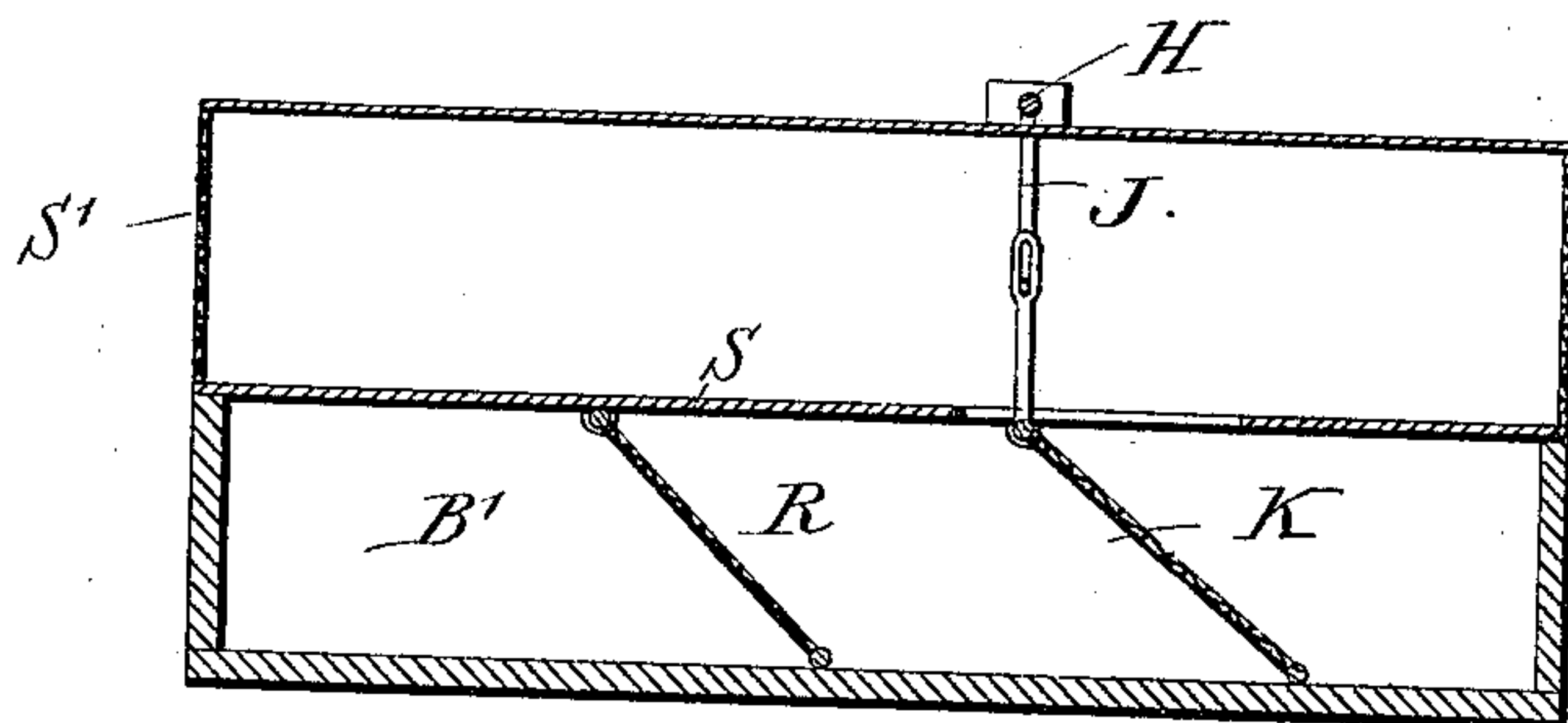
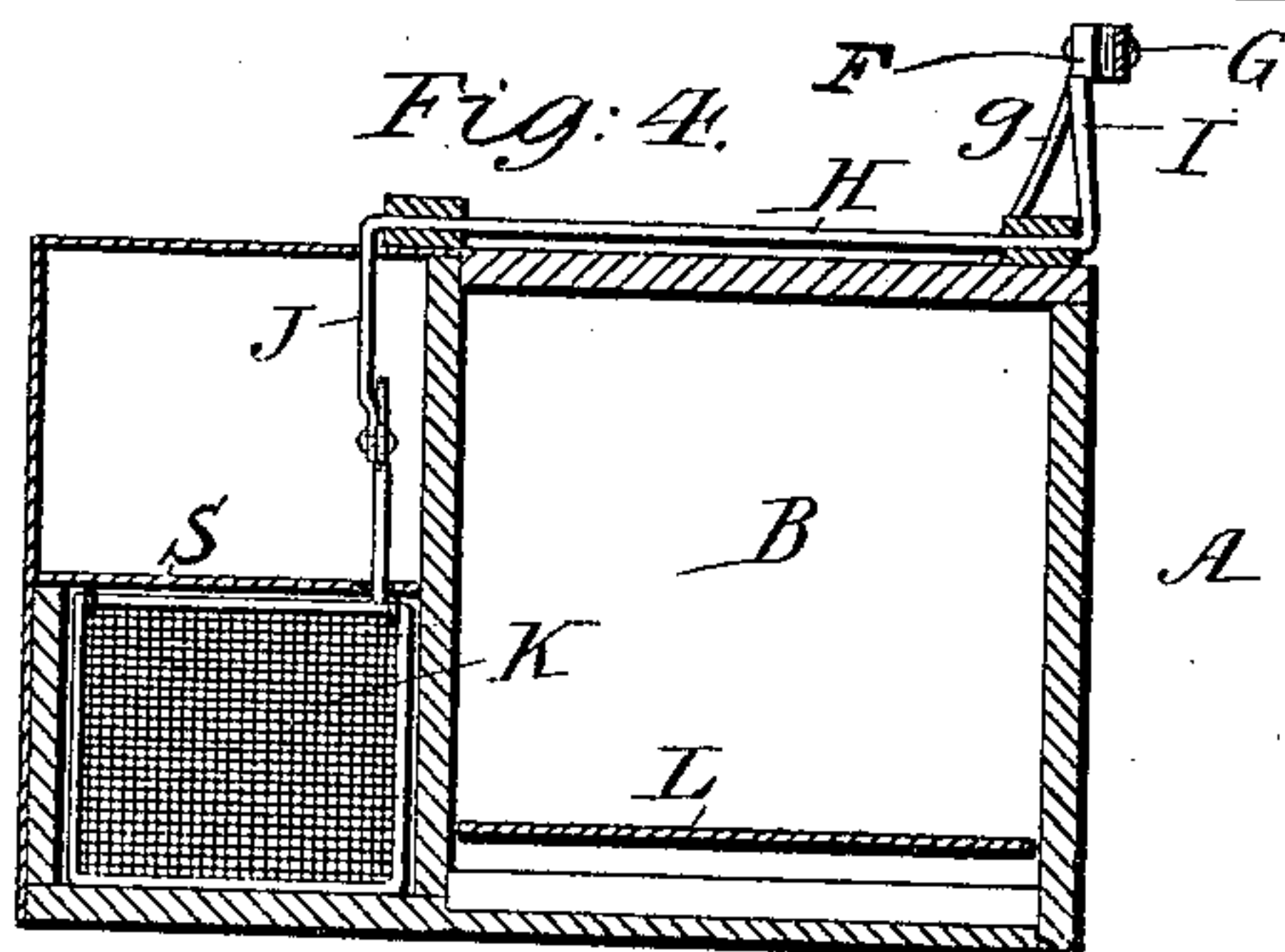


Fig. 4.



Witnesses.

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JOSIAH KNOOP, OF CASSTOWN, OHIO.

ANIMAL-TRAP.

SPECIFICATION forming part of Letters Patent No. 607,691, dated July 19, 1898.

Application filed September 30, 1897. Serial No. 653,627. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH KNOOP, a citizen of the United States, and a resident of Casstown, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Animal-Traps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view of a trap which embodies my invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1; and Fig. 4 is a transverse section on the plane indicated by the line 4 4, Fig. 1.

This invention is designed to provide an animal-trap of improved character more especially intended for use as a rat-trap and having means whereby it is rendered self-setting; and the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates a box or closure which is divided by a longitudinal partition A' into a main compartment B and a smaller compartment B'.

C is an opening by means of which the two compartments have communication with each other. The compartment B' is a closed compartment, while the compartment B has open end portions provided with vertically-swinging doors B'', hinged or pivoted at *d*.

Journaled transversely upon the top of the box or closure is a shaft E, which carries a heavy coiled spring E', similar to a clock-spring. At the respective ends of the said shaft are oppositely-extending cranks F F', to which are connected, respectively, oppositely-extending pitmen G G', whose distant ends are loosely connected to arms *g*, secured to the respective doors B''.

H is a rock-shaft which is journaled transversely upon the box or closure upon the top of the main compartment and below the shaft E. Said shaft has at one end an upwardly-extending arm I, which is located in the path

of the crank F. At its opposite end it has a downwardly-extending arm J, which is connected to a pivoted gate or drop K, which is placed across the lower portion of the compartment B' at some little distance from the opening C.

L designates a treadle or tiltable platform fastened to a rock-shaft M, which extends transversely across the lower portion of the main compartment B. One end of this shaft projects through the outer lateral wall of said compartment and carries a double arm M'. Pivoted at the point *n* to the same side of the box is a lever N, whose lower end portion is adjacent to the arm M' and whose upper end portion is formed with a hook N', which is normally in position to engage the crank F, and thereby prevent the rotation of the shaft E under the action of the spring E'.

P is a spring which presses against the lower portion of the lever N and holds it in contact with the arm M', thereby holding the treadle L normally in balanced position.

R designates another drop or gate which is similar to the one above described and which is placed in advance of that one, but within the compartment B'. Said compartment is preferably made with an upper floor S, in order to give more room therein. S' is a grating at one end of said compartment.

In operation the engagement of the crank F with the hook N' of the lever N holds the shaft E in such position that both the doors B'' are in wide-open position, as shown in the drawings. When an animal enters the compartment B at either end and steps upon the treadle L, (tempted by bait placed thereon,) its weight causes said treadle to tip or tilt, thereby rocking the shaft M and turning the arm M' thereof. This movement of said arm by reason of its impingement against the lever N rocks the latter sufficiently to disengage its hook N' from the crank F, thereby releasing the shaft E. Said shaft is thereupon immediately actuated by its spring to make a one-half revolution, its further movement being prevented by the contact of the crank F with the arm I of the rock-shaft H. This half-revolution of the shaft is sufficient to close both the doors B'' through the movement of the pitmen G G', and thereby confine the animal in the trap. Finding itself

imprisoned the animal passes through the opening C into the compartment B' and through or under the two drops R and K and in passing under the drop K rocks the shaft 5 H sufficiently to move the arm I thereof out from under the crank F. The shaft E is now again released and makes another half-revolution, being stopped in its first position by the engagement of the crank F with the hook 10 N' of the lever N, the latter having returned to its first position when the treadle was relieved of the weight of the animal. This movement opens both the doors B'' and again sets the trap ready for another animal.

15 It will be seen that the doors B'' remain closed until the animal has passed the drop or gate K, but that as soon as he has passed the same and is safely secured in the compartment B' the trap again becomes set.

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

1. In an animal-trap, the combination with the box or closure having two compartments 25 therein which communicate with each other by a passage-way, and two gates or drops arranged in said passage-way, one in advance of the other, and moved by the animal to permit his passage therethrough in one direction only, a normally open swinging door which 30 controls the entrance to the trap, a spring-actuated shaft operatively connected with the said door to open and close the same once upon each revolution thereof, a lever having a hook for engagement with a crank of the said

shaft and lock it in position with the said door open, a treadle, an arm connected thereto and impinging against an arm of the said lever, a spring for maintaining such impingement, and a rock-shaft connected with the second 40 of said gates or drops and also having an arm which is normally in the path of said crank and contacts the same at the end of the first one-half revolution of the said shaft, substantially as specified. 45

2. In an animal-trap of the character described, the combination with the swinging doors which control the entrances to the trap, and the spring-actuated shaft operatively connected with the said doors to open and 50 close the same once upon each complete revolution thereof, of the pivoted lever having a hook engaging a crank of said shaft and holding the latter in position with the doors open, a rock-shaft, a treadle or platform con- 55 nected thereto, an arm on said shaft which impinges against an arm of the said lever, a spring which maintains the contact between said arms, and means for holding said shaft at the end of its first half-revolution, together 60 with means operated by the passage of the animal into a second compartment of the trap whereby such holding means are released, substantially as specified.

In testimony whereof I affix my signature 65 in presence of two witnesses.

JOSIAH KNOOP.

Witnesses:

JEAN McDOWELL,
MATTIE SHIDAKER.