

G. DUFFEK.

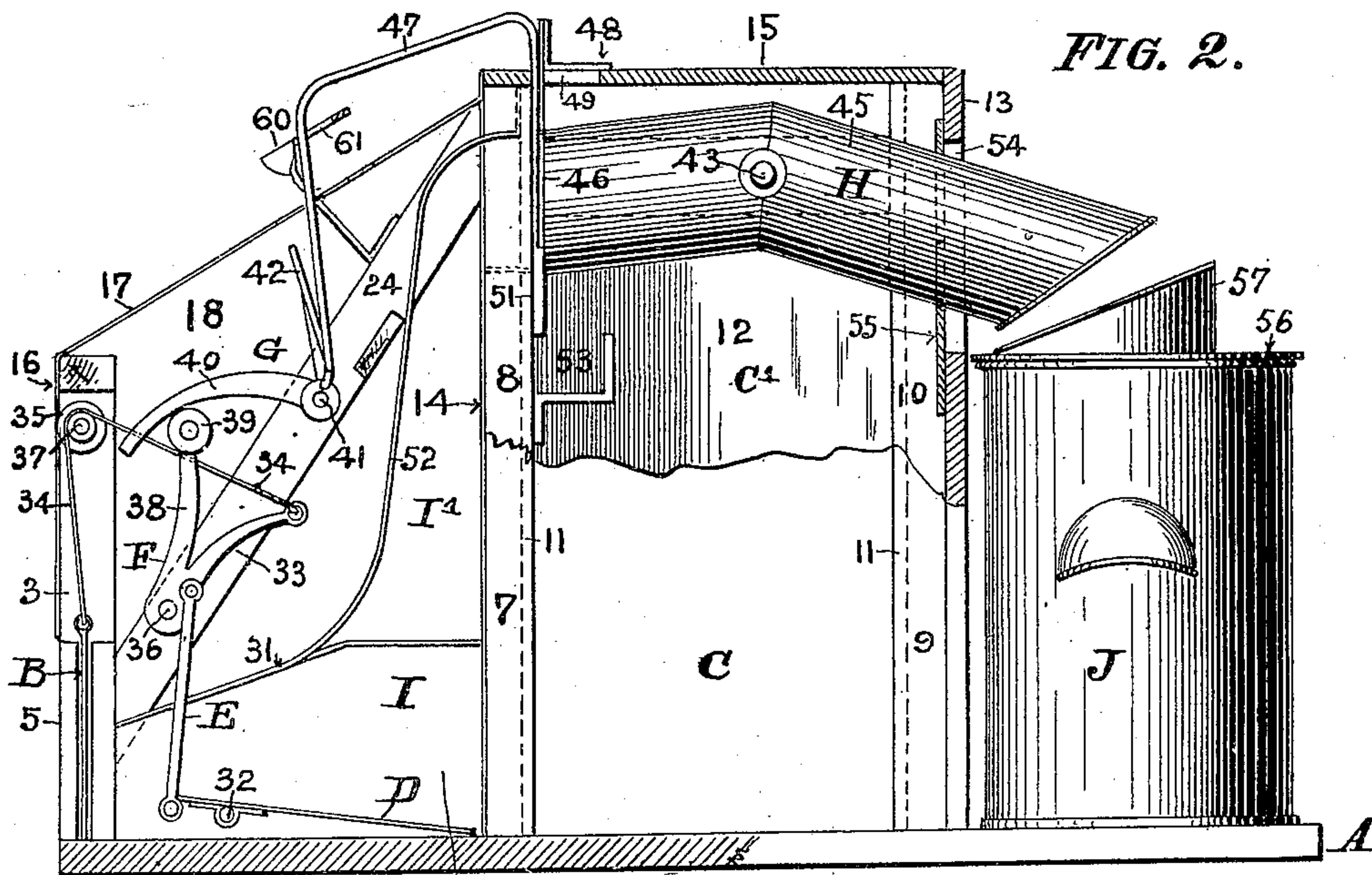
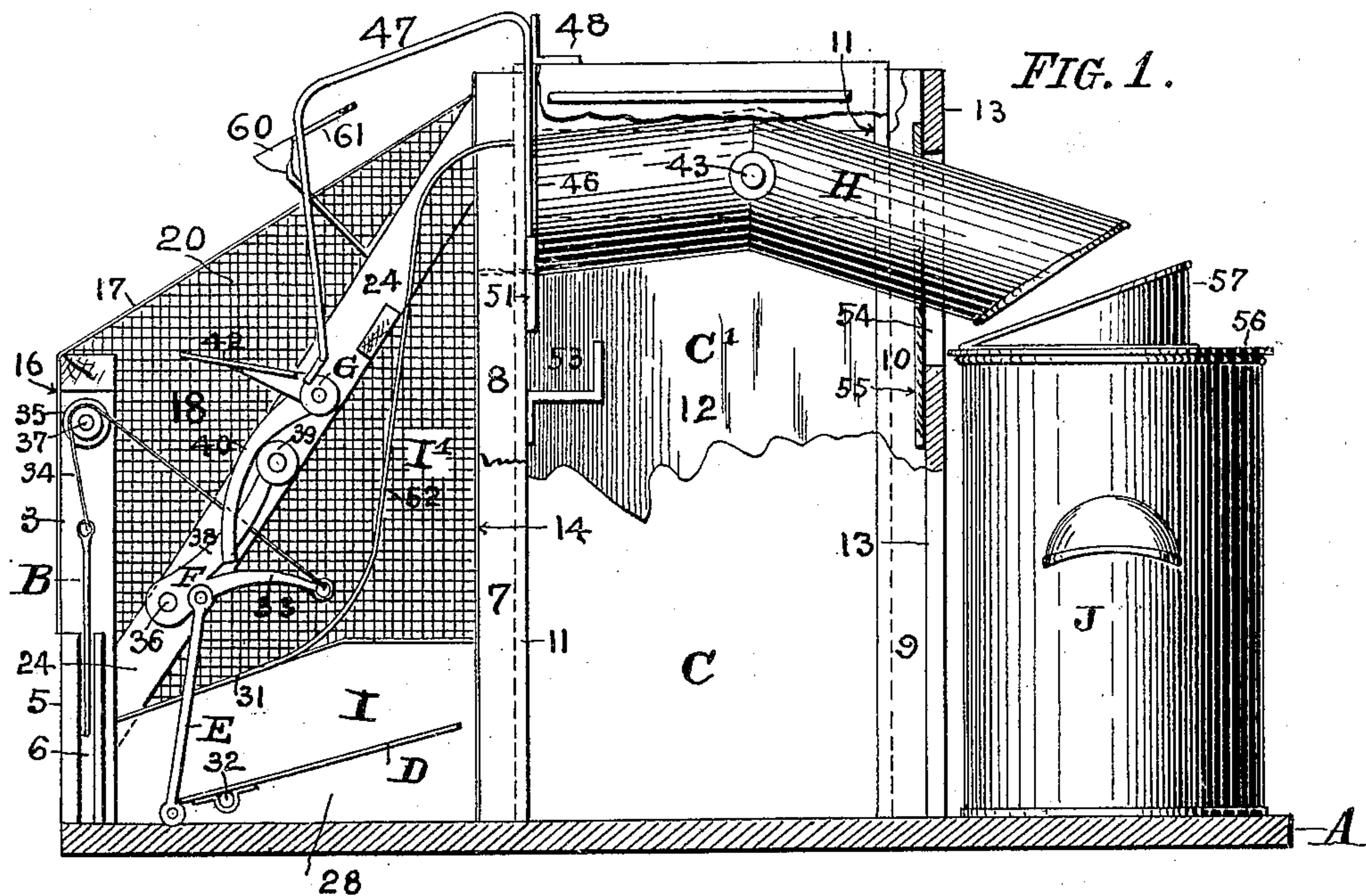
RAT TRAP.

APPLICATION FILED OCT. 26, 1908.

916,921.

Patented Mar. 30, 1909.

2 SHEETS—SHEET 1.



Witnesses:

28

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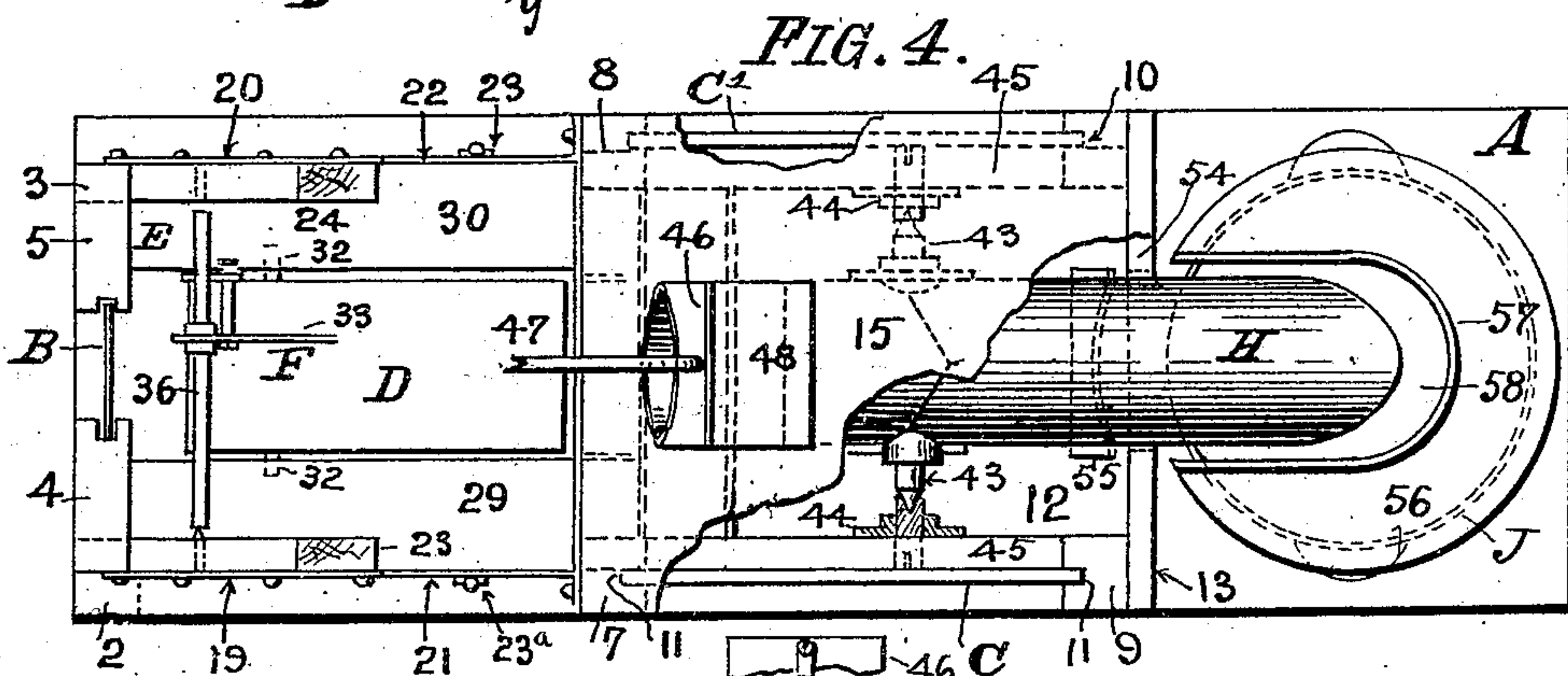
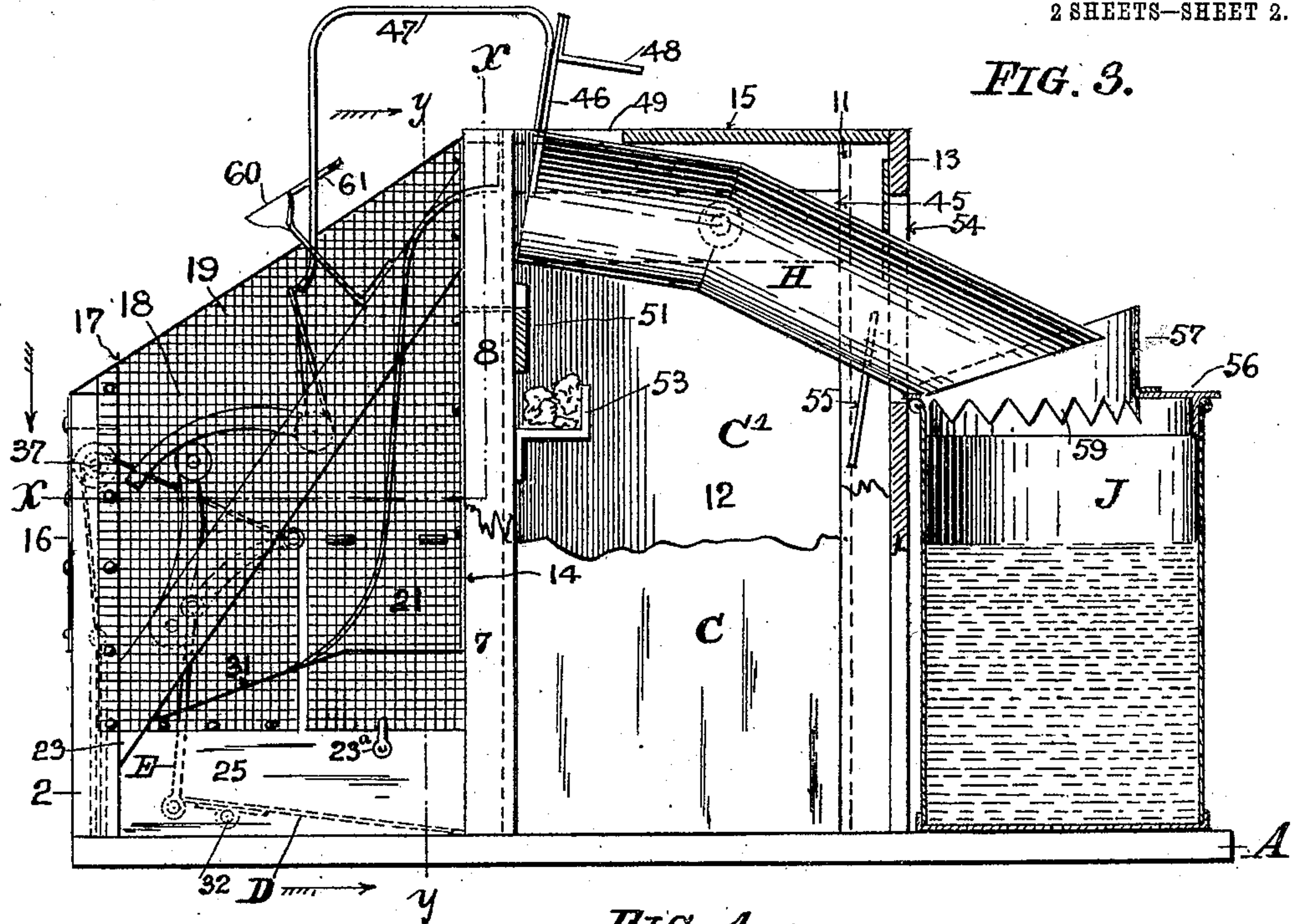
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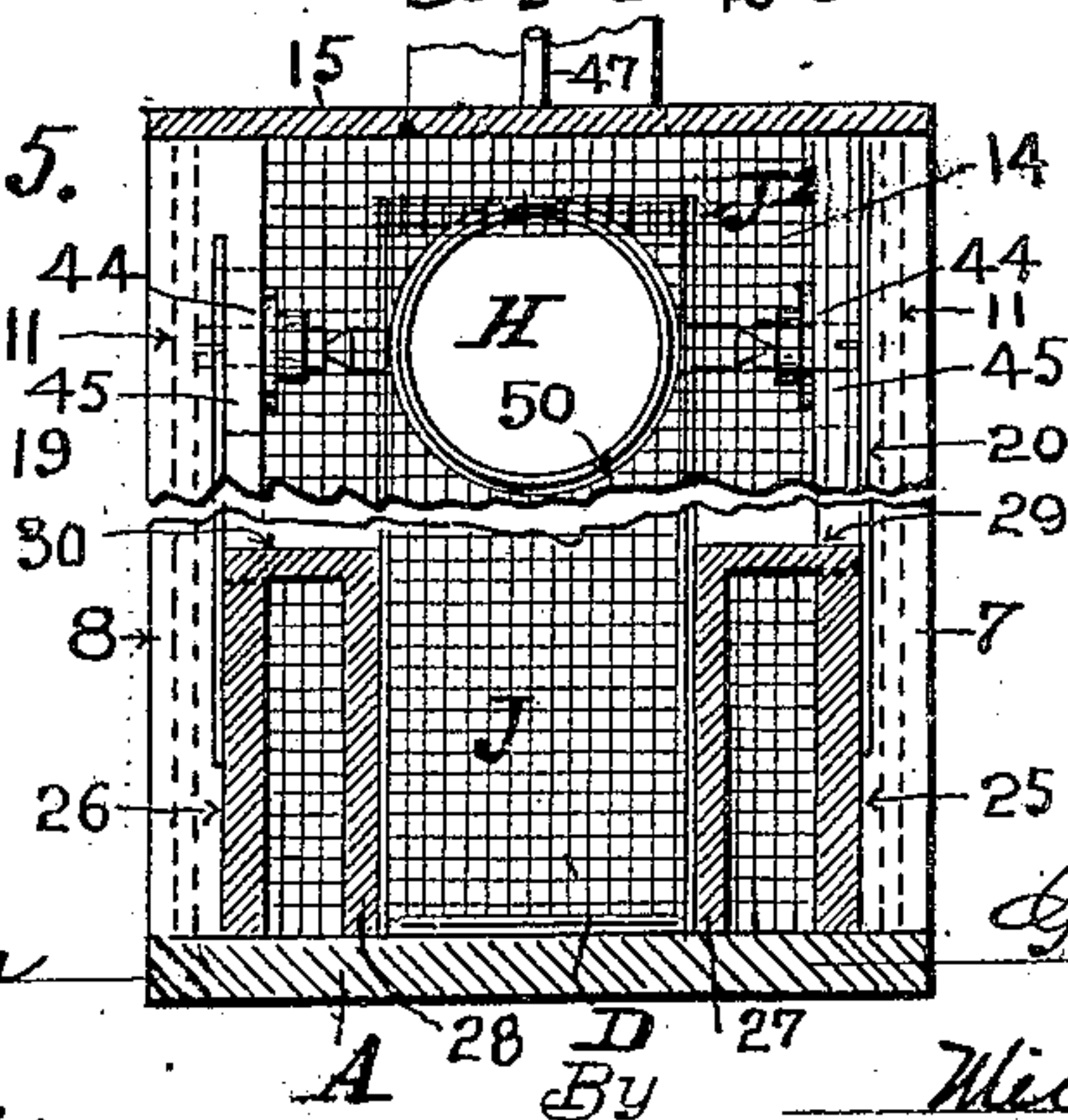
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2 SHEETS—SHEET 2.



**FIG. 5.**



Witnesses:

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# UNITED STATES PATENT OFFICE.

GOTTFRIED DUFFEK, OF CHICAGO, ILLINOIS.

## RAT-TRAP.

No. 916,921.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed October 26, 1908. Serial No. 459,598.

*To all whom it may concern:*

Be it known that I, GOTTFRIED DUFFEK, a resident of Chicago, in the county of Cook and State of Illinois, an alien, a former subject of the Emperor of Austria-Hungary, have invented certain new and useful Improvements in Rat-Traps; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheets of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in rat-traps; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described and then pointed out in the claims.

In the drawings already referred to, which serve to illustrate this invention more fully, Figure 1 is a side-elevation, partly in section, of my improved rat-trap showing the position of the various parts and mechanism in the condition when the trap is "set." Fig. 2 is a similar view showing the position of the parts when the trap is closed. Fig. 3 is a similar view illustrating the position of the parts in the act of discharging a trapped rodent into the water-tank. Fig. 4 is a sectional plan taken in the direction of an arrow in Fig. 3, on line *x x* of said Fig. 3, parts being broken away to disclose underlying mechanism. Fig. 5 is a transverse sectional elevation of fragments of the rat-trap taken in the direction of the arrow in Fig. 3 on line *y y* of said Fig. 3.

Like parts are designated by corresponding characters and symbols of reference in all the figures.

The object of this invention is the production of an efficient trap for catching and exterminating rodents, such as rats, mice, &c., and in order to attain this end I construct this trap as illustrated in the drawings, in which A designates a base-board of suitable dimensions. Upon this base-board I locate at one end two uprights 2, 3, and between these uprights, shorter end-boards 4, 5, which end-boards are grooved at their opposite edges at 6, to receive a vertically-

operating gate B, hereinafter to be more specifically referred to.

At a suitable distance from the uprights 2 and 3, I locate further uprights 7 and 8 which in order to distinguish them from the uprights 2 and 3 I shall hereafter term middle-posts, and also a suitable distance from these middle-posts, two end-posts 9 and 10. These posts 7 and 9 and 8 and 10 are grooved on their opposing sides at 11 to receive, sliding in said grooves, gates or doors C, C' respectively, through which access may be had to a compartment 12, which compartment is bounded by the base-board already mentioned, a solid rear-wall 13, a front-wall 14, composed of wire-cloth or wire screening and a solid top or cover 15. On the face of, and connecting the two uprights 2 and 3 above the end-boards 4, 5, there is a wire screen 16, to close the space between these two posts and this wire screen extends rearwardly at 17, to the two middle-posts 7 and 8 to form a roof for a compartment 18, which is closed at its sides by wire-screens 19 and 20, there being doors 21, 22 in these side-screens 19 and 20 through which access may be had to the interior compartment 18. Buttons 23<sup>a</sup>, are provided to secure the side-doors 21, 22 in a locked condition.

From the lower portion of the uprights 2 and 3 to the upper end of the middle-posts 7 and 8 lead diagonal slats or bars 23, 24, which serve the purpose of braces, and at the same time afford means for attachment of bearings for operating-shafts hereinafter to be described.

In the compartment 18 there are two vertical outside walls, 25, 26, Figs. 4 and 5, reaching a distance above the base-board A and to which the lower ends of the side-screens 19 and 20, and the bottoms 23 are secured, and two inner walls, 27 and 28 corresponding with the outside walls 25 and 26, and covered by cover-boards, 29 and 30, to serve as shelves for holding bait. The space between the inner walls 27 and 28 is covered by a wire screen 31 shown only in Figs. 1, 2 and 3, but omitted in Fig. 4 so as not to obscure underlying parts, and this space serves as a passage for the rodent after it has passed the gate B and entered the trap.



In the bottom of this passage there is located a tilting platform D, which platform is journaled near its forward end in suitable bearings by an axle 32, the normal position of this platform being shown in Fig. 1.

From the forward end of the platform D leads a link or connecting-rod E upward to a bell-crank F which with one of its members, 33, and a cord 34, passing over a cord-sheave 35, connects the gate B with this member 33. The bell-crank F is mounted upon a transverse shaft 36 having its bearings in the diagonal bars 23 and 24, while the cord-sheave 35 is mounted upon an axle 37, having its bearings in the uprights 2 and 3. The second member, 38, of the bell-crank F carries at its end a roller 39, which engages with the curved arm 40 of a bell-crank G mounted upon a shaft 41, Fig. 2, also having its bearings in the diagonal bars 23 and 24, the other member 42, of said bell-crank G being a plate of suitable width and length.

In the compartment 12, there is suspended a tube H which is formed of two sections the longitudinal axes of which are inclined to each other, said tube having pivots 43 journaled in bearings, 44, Figs. 4 and 5, which bearings are secured to longitudinal horizontally-disposed bars 45, located between the middle and end posts, as illustrated in the figures. At the end of this tube nearest the middle-posts there is secured an upwardly-projecting apron 46, and in front of this apron there is secured a rod 47 bent into approximately U-shape, the free end of said rod 47 reaching downwardly and terminating in close proximity to the plate-member 42 of the bell-crank G. In the rear of this apron 46 there is a plate 48 which, when the trap is in its normal position covers an opening 49 in the roof 15, through which the forward end of the tube H in part projects when the latter is tilted as will hereinafter appear.

As heretofore stated, the forward wall 14 of the compartment 12 is composed of wire cloth and in this wall there is a circular aperture 50, Fig. 5 which registers with the forward end of the tube H, a stop, 51 secured to the middle-posts 7 and 8 being arranged to support the forward end of the tube H in its normal position.

The forward end of the tube H is heavier than the rear-end of the same by the additional weight of the apron 46, the rod 47 and the L-shaped plate 48, the difference being, however, but sufficient to return this tube to its normal position after having been tilted and also to return the gate-operating mechanism to its normal condition, and in order to understand this operation more fully I shall now describe the operation thereof.

Assuming the trap being set, which would be its normal condition, a rodent entering the structure through the opening governed by the gate B passes into the interior of the passage I in the compartment 18 over the platform D which platform will tilt by the weight of the animal and rising at its forward end cause the connecting rod E to move the bell-crank F upwardly so that the cord 34 can allow the gate B to close the entrance and prevent the rodent from retreating, the parts of this mechanism being so well balanced that the downward movement of the platform D will be gradual and not disturb the animal. In its upward movement, the member 38, with its roller 39 of said bell-crank F, will lift the curved member 40 of the bell-crank G and throw the plate-member 42 rearward. The trapped animal will pass from the entrance passage I upwardly through the vertical passage I<sup>1</sup>, which is formed by a wire-screen front-wall 52 and the wire-screen wall 14, and passing through the circular aperture 50 therein enter the tube B which tube will tilt by the weight of the animal therein when passing through said tube toward its rear end and attain the position shown in Fig. 3, the inclination, and the smoothness, of the interior of the tube causing the animal to slide downward in the tube and drop into a reservoir or tank J, placed upon the base-board A which tank is filled, in part, with water (or poisoned water) wherein the rat or other animal will be quickly drowned.

As seen in Fig. 2, showing the tube H in its normal position, the end of the rod 47, which is slightly curved, is on the forward side of the plate 42. When the tube is being tilted by the rodent passing through the rear portion thereof and the rod 47 moves upwardly, this curved end thereof passes in front of said plate and moves it slightly rearwardly until the curved end has passed the upper end of said plate when the plate will return to its normal position by the preponderance of weight of the curved arm 40. In this position the curved end of the rod 47 is on the rear side of the plate 42 so that when the tube H returns to its normal position, the curved end will push the plate 42 forwardly and thereby open the gate and reset the trap by the mechanism consisting of said curved arm 40 actuating the bell-crank F in the manner already described.

In order to lure the animal into this trap, the same is baited by placing suitable food upon the shelves 29 and 30 and also upon a shelf, 53, located in the compartment 12, which food, however, is inaccessible to the trapped animal and cannot, therefore, be consumed so that this trap will remain baited, and it is a fact that with this trap a large



number of rats have been caught in a single night owing to the fact that the trap remains always baited and after having deposited a trapped animal in the water tank, will be  
 5 reset automatically in the following manner: The trapped animal having been deposited in the water tank J, the tube H will return to its normal position. In this movement, the  
 10 rod 47 with its end in close contact with the plate-member 42 of the bell-crank G will push the latter forward and downward, the curved member 40, acting upon the roller 39 will force the member 38 of the bell-crank F rearwardly and the member 33 downwardly;  
 15 the cord will pull the gate B upward and the connecting rod E force the forward end of the platform D downwardly. Thus all the parts and mechanism of this trap are returned to their normal position ready for trapping any  
 20 rodent that will enter the trap. In order to properly guide the rod 47 I have placed upon the diagonal bars 24 a guiding bracket 60, having a slotted aperture 61, through which said rod 47 is passed and by which it is pre-  
 25 vented from moving sidewise, thereby always insuring proper action of this rod in conjunction with the plate 42 on the bell-crank G.

In Fig. 1, I have shown the trap set or in its normal position. In Fig. 2 the trap is  
 30 illustrated in its second stage of setting, viz., the gate closed and the platform depressed, while in Fig. 3 the trap is depicted in its third stage, that is to say the tube H tilted to discharge or cause the discharge of the  
 35 trapped animal into the water-tank J, the position of the various levers and the platform being the same in both, the second and the third stages of setting.

I find it desirable that the interior of the  
 40 trap where wood-work is exposed to the gnawing action of the trapped animal, viz., the inner surfaces of the walls 27 and 28 and the inner surfaces of the end-boards 4 and 5 be metal-covered, so as to prevent a rat from  
 45 gnawing its way out of the trap and thereby securing its liberty.

In order to permit the rear-end of the tube H to move vertically in the rear-wall 13, the latter is slotted at 54 and to prevent any possible access to the compartment 12 from the  
 50 outside, the opening 54 is covered by an apron 55 secured to said tube and moving therewith, while the entire inner surfaces of this compartment may be metal-lined, or all  
 55 the walls and parts of the trap which are not composed of wire-cloth may be made from sheet-metal in a manner which will readily suggest itself to any mechanic skilled in the arts to which this invention appertains, and  
 60 I desire it to be distinctly understood that I do not wish to confine myself to some of the specific details of construction herein disclosed since I may vary the same or dispense

with some of the parts without departing from the nature of my invention. Thus I  
 65 may dispense with the shelf 53 in the compartment 12; in fact I may dispense with this compartment entirely and simply provide for means wherein to pivot the tube H and means for limiting its movement, such and  
 70 other minor details being clearly within the scope of my invention.

In the tank J there is a cover 56 which has an oblong extension 57 and a slotted aperture 58, Fig. 4, for the passage of the animal  
 75 into the tank J, and the lower edge of this aperture is serrated at 59 as shown in Fig. 3, to successfully prevent an animal in the tank from escaping therefrom.

In order to cause the rapid death of an  
 80 animal dropped into the tank I may poison the water in the tank with a strongly and rapidly acting poison, which, however, shall be odorless or perfumed with a substance to which rodents are not averse.  
 85

Having thus fully described my invention I claim as new and desire to secure to me by Letters Patent of the United States—

1. In a rodent trap, the combination, with an ingress-compartment having an ingress-  
 90 opening, of a suspended gate in said opening; a pivotally-mounted platform in said compartment; means for connecting said platform with said gate whereby the said gate is closed by the trapped rodent in its passage  
 95 through said ingress-compartment; an upwardly-leading passage in said compartment; a tiltable tube communicating at one end with said upwardly-leading passage, said tube having the preponderance of weight  
 100 at its forward end; means adapted to be actuated by the tube upon the depression of the forward end thereof for opening said gate and resetting the trap, and a tank with which the tiltable tube communicates, the  
 105 opening of said gate being accomplished by the preponderance of weight at the forward end of said tube acting upon the setting mechanism.

2. In a rodent trap, the combination, with  
 110 an ingress-compartment having an ingress opening; of a suspended gate in said opening; a covered passage in said compartment; a pivotally-mounted platform in said passage, a connecting rod pivoted to the forward end of  
 115 said platform; a bell-crank having an arm to which said connecting-rod is pivoted; a cord leading from this arm to the gate; a vertical passage in said ingress-compartment; a pivoted tube communicating at one end with  
 120 said vertical passage; a rod on the forward end of said tube, and a second bell-crank in said ingress compartment, one member of which is in operative connection with said  
 125 rod and the other end with the second member of the first-mentioned bell-crank, whereby



the gate is opened and closed by the joint action of the pivoted platform and the tiltable tube.

3. In a rodent trap, the combination, with  
5 an ingress-compartment having an ingress-opening, of a vertically-movable gate in said opening; a covered passage in said compartment; means in said compartment for closing said gate, said means being actuated by the  
10 rodent passing through said covered passage; a tiltable discharge-tube; means at the forward end of said tube adapted to open said gate, said means including bell-crank mech-

anism; said tube having the preponderance of weight at its forward end adapted to actuate said bell-crank mechanism upon the depression of the forward end thereof after the rodent has passed through said tube and has lowered the rear end thereof. 15

In testimony that I claim the foregoing as  
my invention I have hereunto set my hand  
in the presence of two subscribing witnesses. 20

GOTTFRIED DUFFEK.

Attest:

MICHAEL J. STARK,  
JOSEPH SVEC.