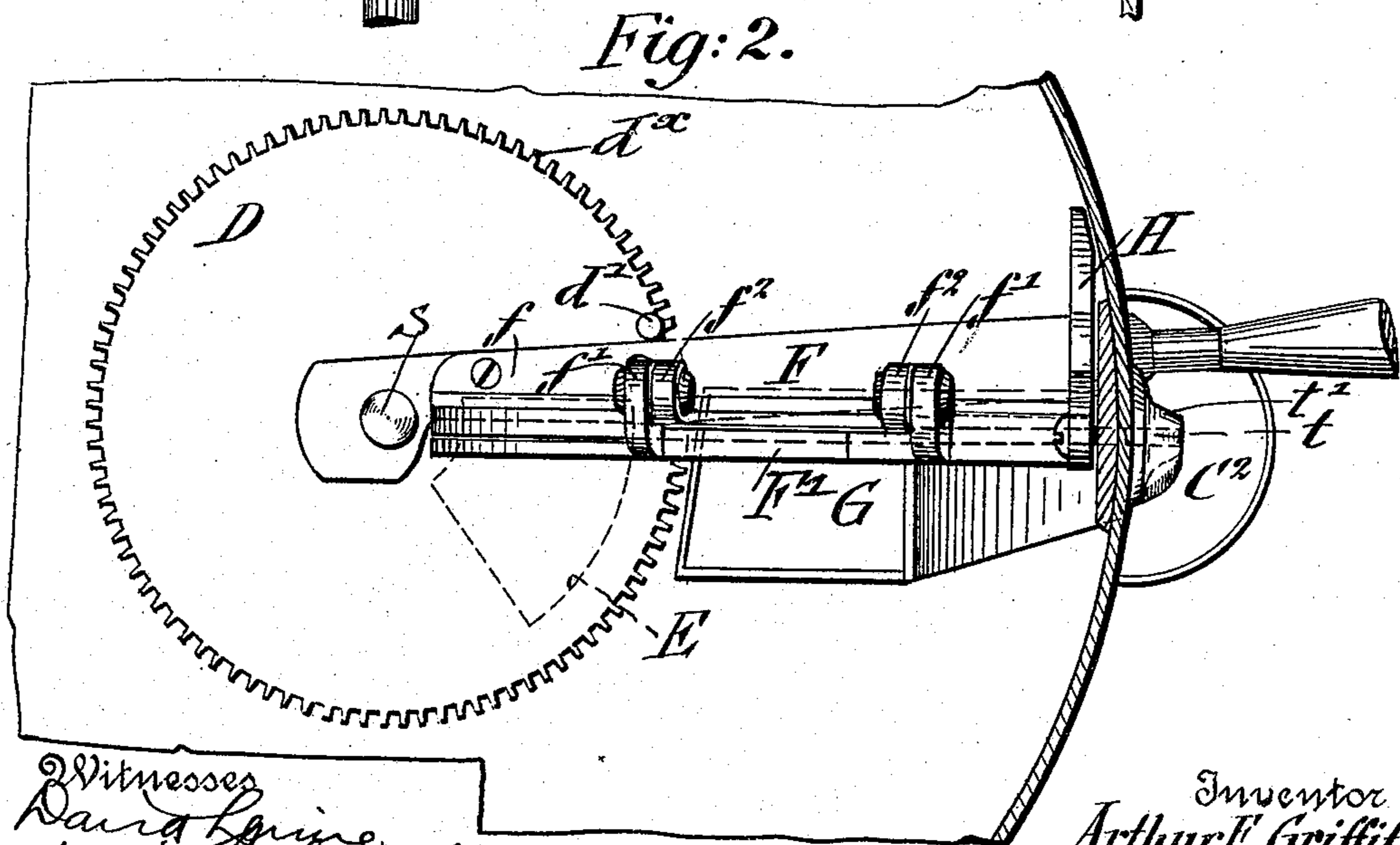
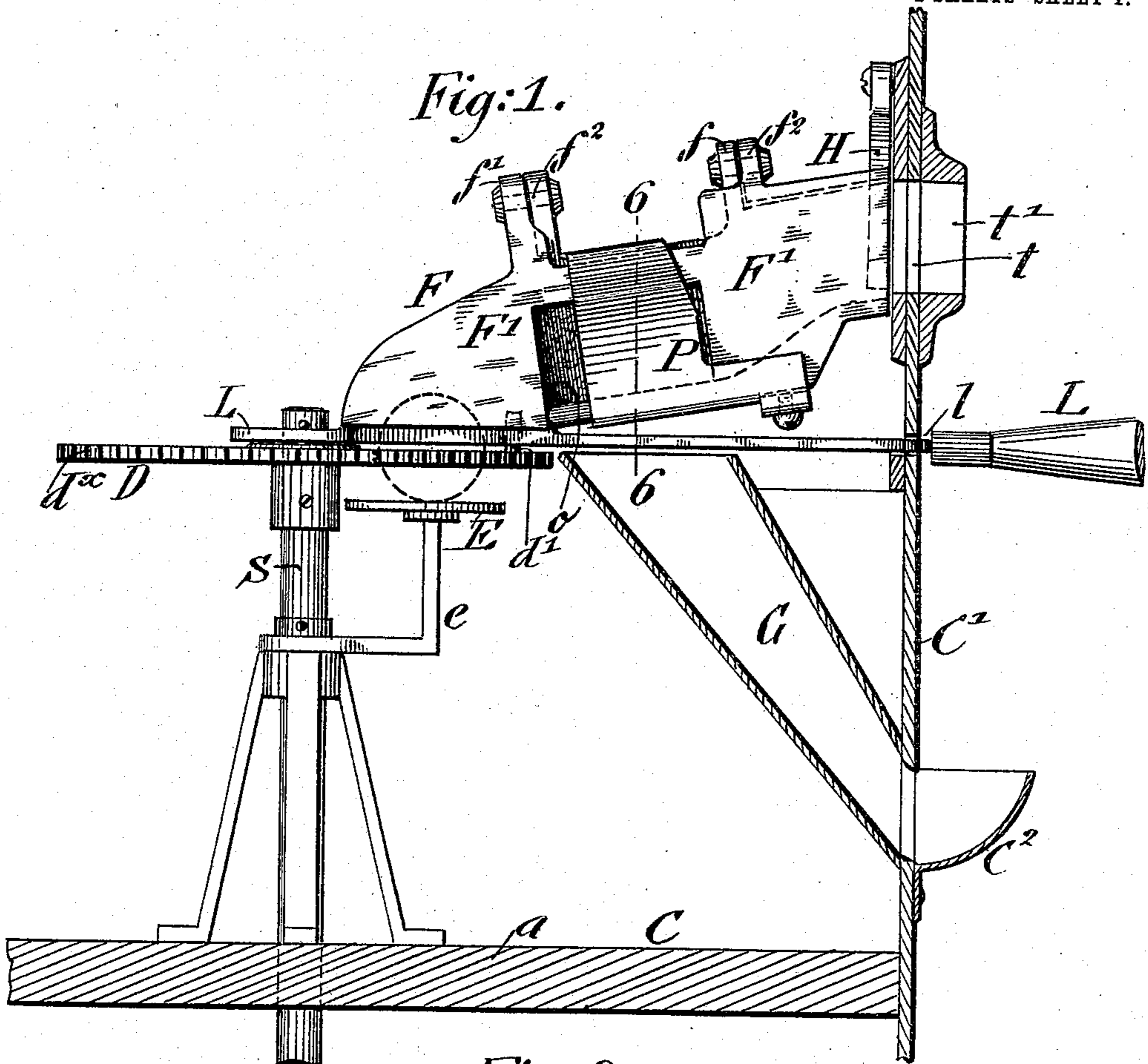


A. E. GRIFFITH.  
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 APPLICATION FILED FEB. 8, 1907. RENEWED JUNE 11, 1909.

932,698.

Patented Aug. 31, 1909.

2 SHEETS—SHEET 1.



Witnesses  
 David L. Loring  
 Henry J. Schrier.

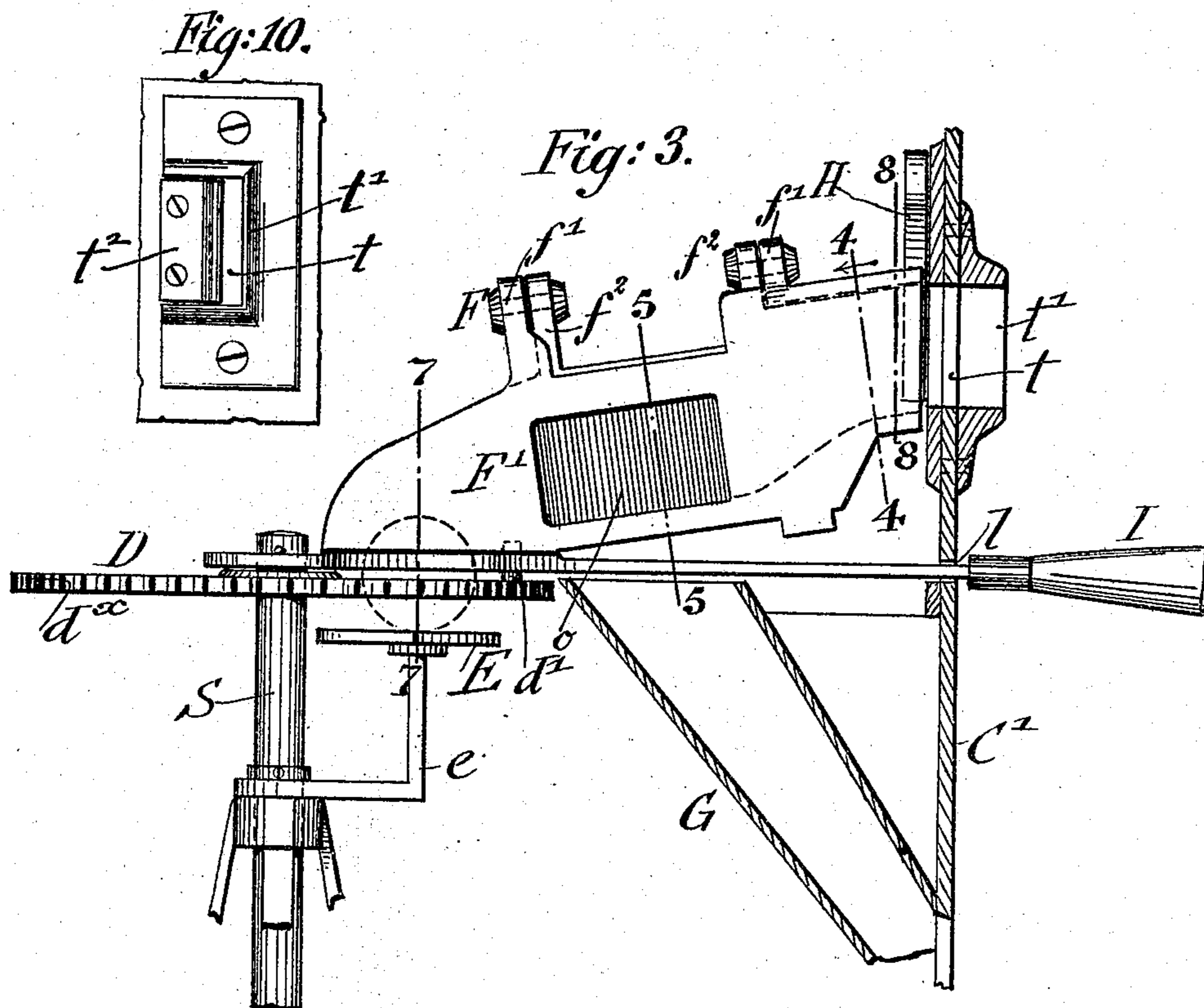
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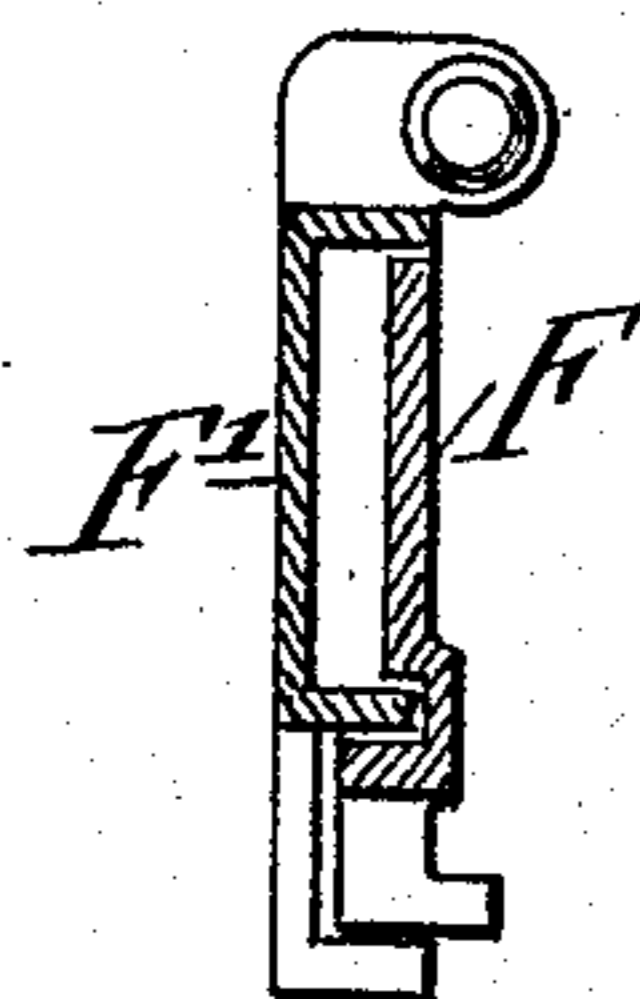
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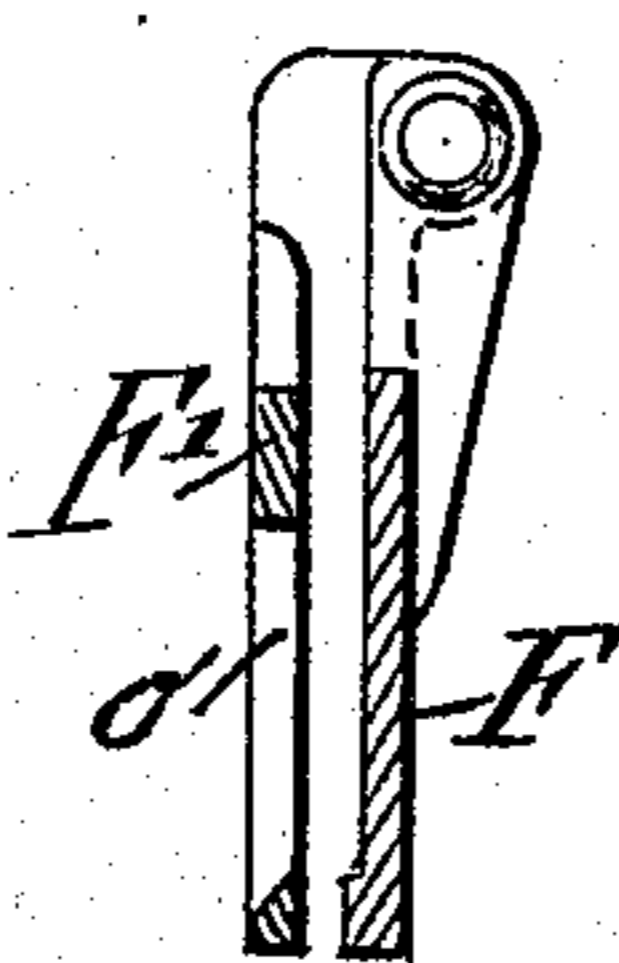
2 SHEETS—SHEET 2.



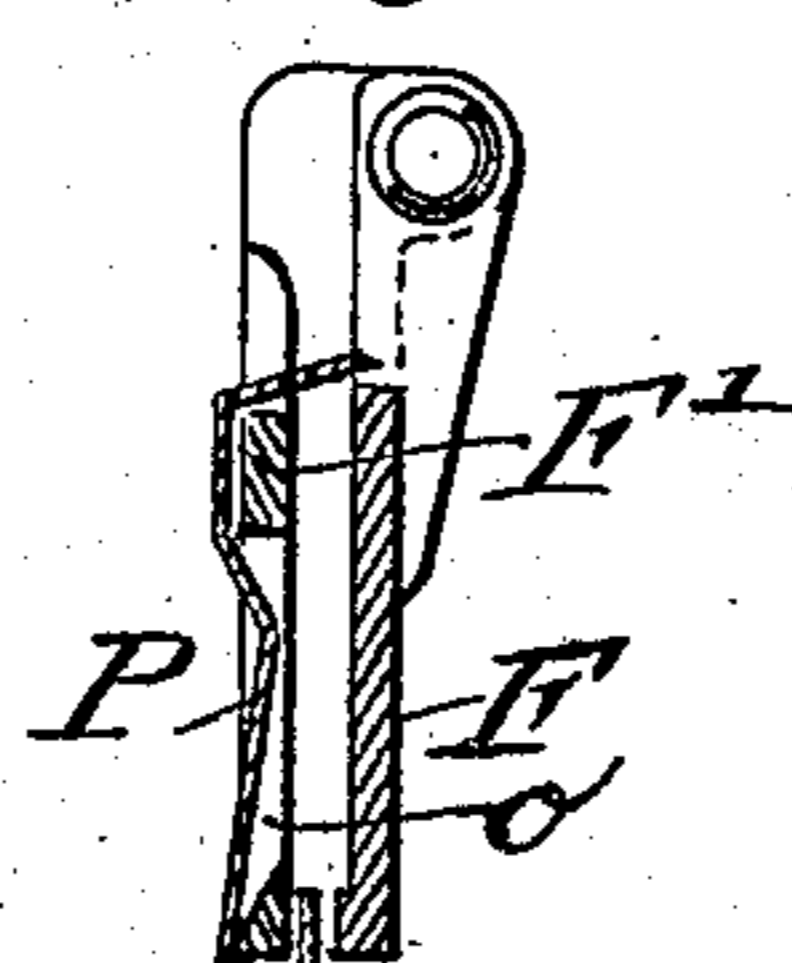
*Fig: 4.*



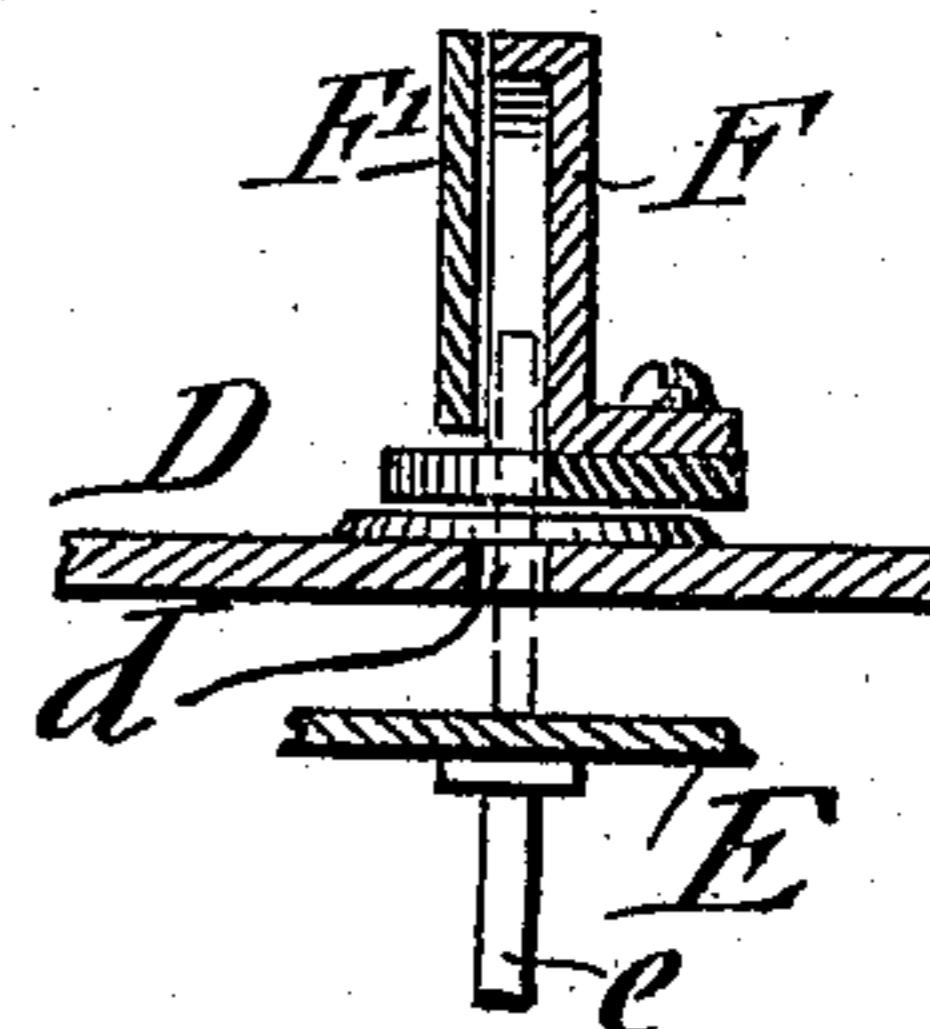
*Fig: 5.*



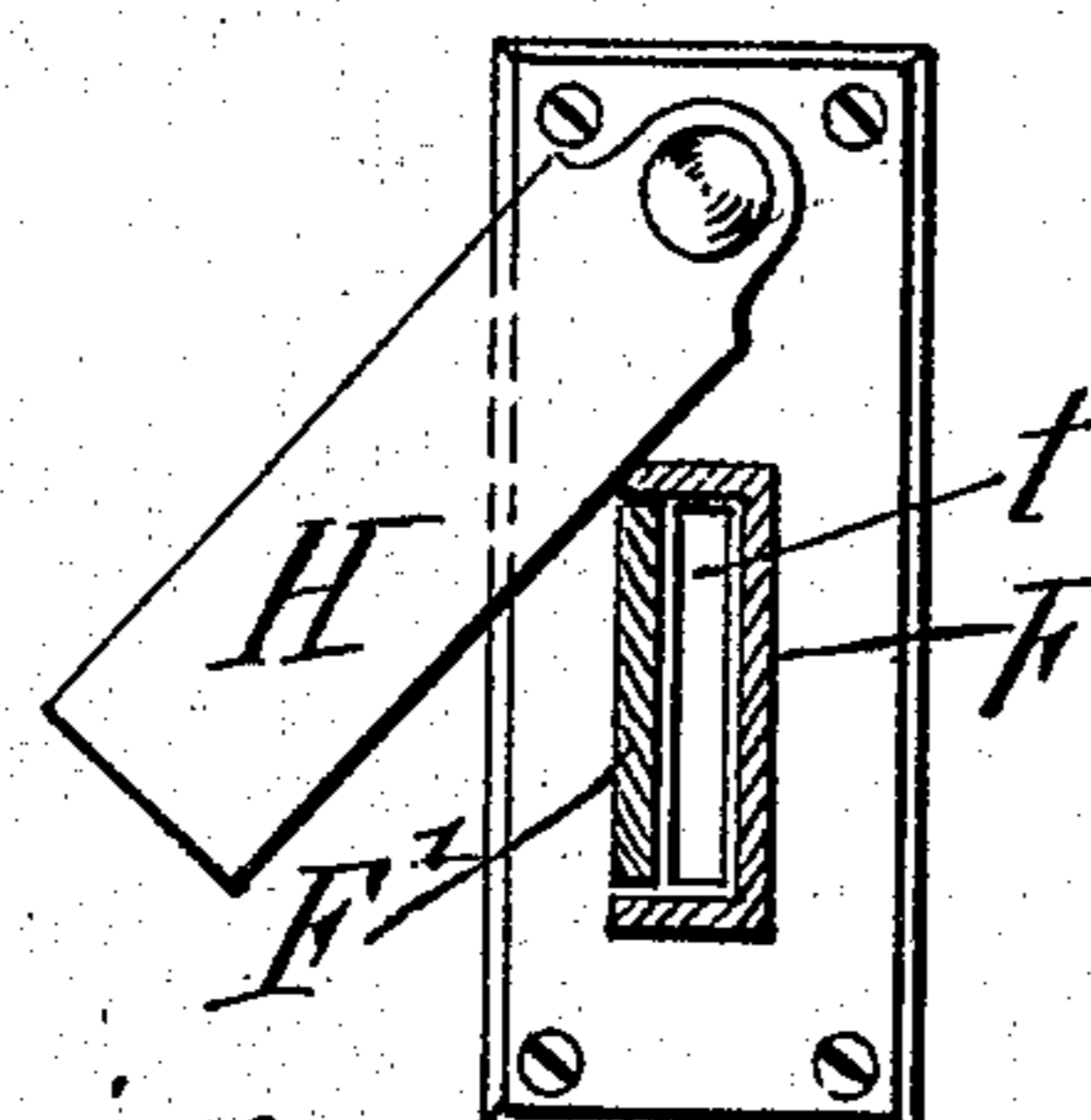
*Fig: 6.*



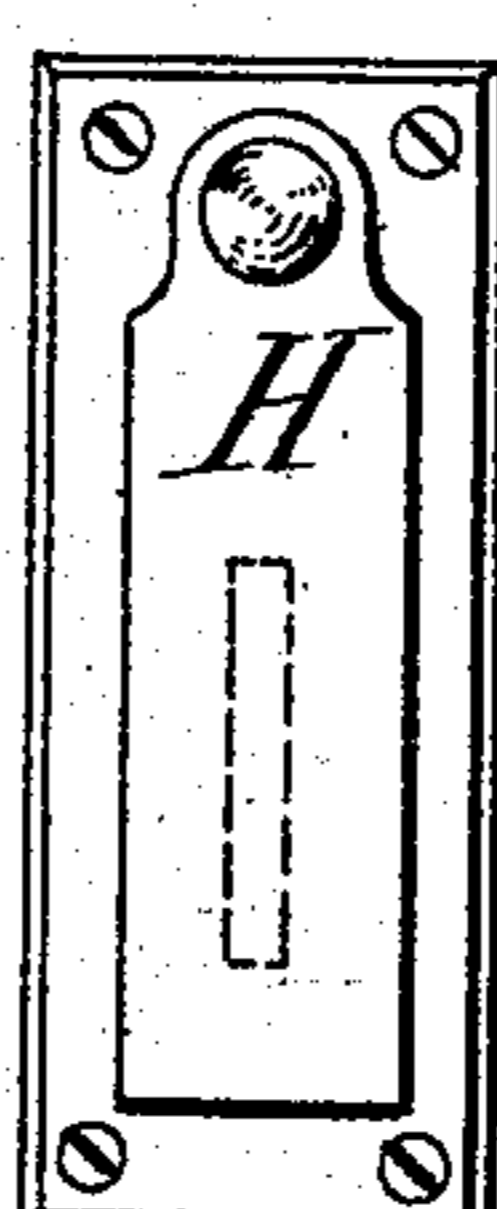
*Fig: 7.*



*Fig: 8.*



*Fig: 9.*



Witnesses  
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Inventor  
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# UNITED STATES PATENT OFFICE.

ARTHUR E. GRIFFITH, OF JERSEY CITY, NEW JERSEY, ASSIGNOR OF TWO-THIRDS TO JOHN P. MUTH, OF JERSEY CITY, NEW JERSEY.

## COIN-OPERATED MECHANISM FOR VENDING-MACHINES.

932,698.

Specification of Letters Patent.

Patented Aug. 31, 1909.

Application filed February 8, 1907, Serial No. 356,326. Renewed June 11, 1909. Serial No. 501,446.

*To all whom it may concern:*

Be it known that I, ARTHUR E. GRIFFITH, a citizen of the United States, residing in Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Coin-Operated Mechanisms for Vending-Machines, of which the following is a specification.

This invention relates to an improved coin-operated mechanism for vending machines and other automatic devices, said actuating mechanism being so arranged that by the dropping of a coin the locking of the operating lever with the shaft of the mechanism is produced, while during the return motion of the operating lever the coin is dropped into a suitable receptacle; and for this purpose the invention consists in a coin-operated mechanism which comprises the novel features and combinations of parts to be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side-elevation, partly in section, of my improved coin-operated mechanism, Fig. 2 is a plan-view of Fig. 1, Fig. 3 is a side-elevation similar to Fig. 1, but with the guard-plate removed so as to adapt the coin-chute for coins of different thicknesses, Figs. 4 and 5 are vertical transverse sections on lines 4, 4, and 5, 5, Fig. 3, Fig. 6 is a vertical transverse section on line 6, 6, Fig. 1, Figs. 7 and 8 are vertical transverse sections respectively on lines 7, 7, and 8, 8, Fig. 3, Fig. 9 is an inside view of the slot-closing plate, and Fig. 10 is a detail front-elevation of the coin-receiving slot.

Similar letters of reference indicate corresponding parts throughout the several figures.

Referring to the drawings, S represents an upright shaft which is supported in suitable bearings of a vending machine or other coin-operated device, said shaft transmitting the required degree of motion from the coin-operated mechanism to the operative parts of the machine or device. The shaft S passes through a horizontal partition  $\alpha$ , the space above which serves as a coin-receptacle C. To the upper end of the shaft S is attached a disk D which is provided with a slot  $d$  in line with a hand-lever L which is placed loosely on the shaft S so as to swing forward and backward from one side to the other on the same. The hand-lever L is

guided in a slot  $l$  in the casing  $C^1$  of the machine or device, the extent of the slot limiting the motion of the hand-lever. Below the slotted portion of the disk D is arranged a sector-shaped coin-supporting plate or shelf E which is supported by an angular arm  $e$  on the neck-bearing of the shaft S, as shown in Fig. 1. On the disk D is arranged a stop-pin  $d^1$  against which the hand-lever L abuts when it is returned into its normal or starting position, so as to carry the disk along back into its starting position.

To the hand-lever L is attached near its inner end, adjacent to the shaft S, an inclined coin-chute F by means of a flanged portion  $f$ , the upper end of the coin-chute moving along the inside of the casing  $C^1$  when the lever is moved for the purpose of turning the shaft S. The coin-chute is formed of two sections, one section being attached to the hand-lever L, while the other section is hinged by means of perforated ears  $f^1$  at its upper part to similar perforated ears  $f^2$  of the fixed section of the coin-chute. The hinged section  $F^1$  forms with the fixed section a coin-chute which is closed at the lower part by means of a flange at the ingoing end of the coin-chute up to a certain distance from the same, after which it is open at the lower end so that a wrong coin or token which is dropped into the coin-chute through the slot in the casing drops into the lower portion of the two sections forming the coin-chute, into a delivery-chute G, which is of considerable width at its upper end and tapering at its lower end, where it is connected with a delivery-opening and a cup  $C^2$  which can be connected with the casing  $C^1$ . The wrong coins or tokens that are dropped into the coin-chute pass to the open lower end of the same into the delivery-chute G and are thereby prevented from passing on to the slot in the disk D. In the hinged section  $F^1$  of the coin-chute is arranged an opening  $o$  of sufficient size through which the coins or tokens can also drop to the outside to the wide upper end of the coin-chute. The outgoing lower end of the coin-chute is open at its lower part, the opening being in line with the edge of the hand-lever L and with the edge of the slot  $d$  in the disk D, so that the coin which the mechanism is set for passes downwardly to the end of the coin-chute and drops through the slot in the disk onto

the coin-supporting plate or shelf E, extending with its upper half alongside of the hand-lever L into the coin-chute and with the lower half through the slot  $d$  onto the coin-supporting plate E. In this position the hand-lever L is interlocked with the disk D, so that the hand-lever can be turned in its guide-slot in the casing and moved through an angle of  $90^\circ$  more or less, as shown in Fig. 3. The motion of the hand-lever imparts rotary motion to the shaft and produces thereby the actuation of the vending or other devices. As soon as the coin arrives at the end of the coin-supporting plate E it drops into the coin-receptacle C, in which the coins are collected and from which they are removed from time to time.

When it is desired to use the coin-operated mechanism for a specific coin, such as a one or ten-cent piece, a retaining-plate of sheet-metal is attached to the lower part of the hinged section  $F^1$  by being screwed to a heel, as shown in Fig. 1, which retaining-plate extends into the opening  $o$  of the coin-chute and by its upper end around the upper part and over the top of the chute, as shown in Figs. 1 and 6. In this case the coin is not dropped into the delivery-chute G, but conducted into the slot  $d$  of the disk D on the coin-supporting plate or shelf E. The retaining-plate is bent in inwardly-projecting portions that fit exactly to the sides of the coin used. Any other coin is held back and released without operating the delivery mechanism of the machine or device, by simply shaking the hand-lever to and fro so that the hinged section of the coin-chute is oscillated and thereby the coin dropped into the delivery-chute below so as to be delivered to the outside, if wanted, without producing the regular working of the delivery mechanism. When the retaining-plate is used it is necessary to regulate the coin-opening or slot in the casing  $C^1$  so as to permit only a coin of special thickness to be dropped into the same. For this purpose the slot  $t$  is provided with projecting cheeks, one cheek  $t^1$  being attached stationary to the casing and the other  $t^2$  removable from the same, so that the removable cheek  $t^2$  can be changed and a new cheek substituted which has its edge closer to or farther away from the stationary cheek, according to the thickness of the coin used, such as a one or ten-cent piece. As the opening of the coin-slot would permit any thinner coins to be dropped, it is necessary to remove the retaining-plate so as to return such coins or sheet-metal tokens which are erroneously put in, back through the delivery-chute to the cup  $C^2$ , if desired.

For preventing any dropping of coins or interference with the mechanism while the lever is moved into position for turning the shaft S, a slot-closing plate H is pivoted to the inside of the casing vertically above the

coin-slot. The plate H is moved sidewise, in the position shown in Fig. 8, when the coin-chute is returned by the motion of the hand-lever into its normal or starting position, but it is automatically dropped by gravity so as to close the slot, in the position shown in Fig. 9, when the hand-lever with the coin-chute is moved after the coin has been dropped into the same so as to operate the machine or device. During the movement of the hand-lever and coin-chute the coin-slot is closed at the inside and thereby the dropping in of coins prevented. As soon as the hand-lever and coin-chute are returned into normal position the slot-closing plate is moved sidewise so that the coin-slot is opened and the coin-chute ready for receiving the next coin for operating the vending machine or devices.

The coin-operated mechanism can be used with vending machines and other automatic devices when connected by suitable mechanism with the actuating-shaft. This mechanism may be either connected directly with the shaft or through the disk D, which for this purpose may be provided at its periphery with a series of teeth  $d^*$ , as shown.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a coin-operated mechanism for vending machines, the combination, with a shaft, of a hand-lever applied loosely to said shaft, means whereby said shaft and hand-lever are locked together by the coin, a coin-chute carried by said hand-lever and composed of a stationary section and a section hinged to the upper edge of said stationary section, said sections having an opening between them at their lower edges and the hinged section being provided with a side-opening, a retaining-plate bent about the lower edge of said hinged section and extending over said side-opening throughout a part of the length thereof and over the top of said section, and means for holding said retaining-plate in position.

2. In a coin-operated mechanism, the combination, with the shaft and the hand-lever, of mechanism whereby said parts may be locked by the coin, a coin-chute carried by said hand-lever, a part having a coin-slot to register with the inlet-mouth of said coin-chute, and means for automatically closing said slot when said chute is moved away from the same by said hand-lever.

3. The combination, with the shaft, the hand-lever and the mechanism whereby said parts are locked by the coin, of a coin-chute mounted on said hand-lever, a part having a coin-slot to register with said coin-chute, and a pivoted plate which normally closes said coin-slot, but which is held away from the slot by said coin-chute when the latter is in position to operate the mechanism.

4. In a coin-operated mechanism for vending machines, the combination of a coin-receptacle, a shaft passing vertically through said coin-receptacle, a disk provided with  
5 a slot keyed to said shaft, an operating hand-lever placed loosely at the upper end of said shaft above said disk, a stationary coin-supporting plate below said disk, a coin-chute supported on said hand-lever, means for  
10 limiting the motion of said hand-lever for operating the shaft, means for returning the disk by the hand-lever into initial position, a coin-opening in line with the ingoing end of the coin-chute, and a slot-closing plate  
15 pivoted to the inside of the casing and adapted to close the coin-opening when the coin-chute is moved with the hand-lever for turning the shaft and which is moved side-wise of the coin-opening when the shaft is  
20 returned with the lever into initial position.

5. In a coin-operated mechanism for vending machines, the combination, with a hand-lever for operating the delivery mechanism, of a coin-chute supported on said hand-lever, a coin-slot in the casing of the vending machine in line with the upper end of the coin-chute, and a slot-closing plate pivoted to the inside of the casing and adapted to close the coin-slot when the hand-lever and coin-chute are moved for performing their function  
25 and to move sidewise of said coin-slot when said hand-lever and coin-chute are returned into initial position. 30

In testimony, that I claim the foregoing as my invention, I have signed my name in  
35 presence of two subscribing witnesses.

ARTHUR E. GRIFFITH.

Witnesses:

PAUL GOEBEL,  
HENRY J. SUHRBIER.