

No. 894,601.

PATENTED JULY 28, 1908.

A. CHRONIK.

LOOSE LEAF BINDER.

APPLICATION FILED JULY 1, 1907.

2 SHEETS—SHEET 1.

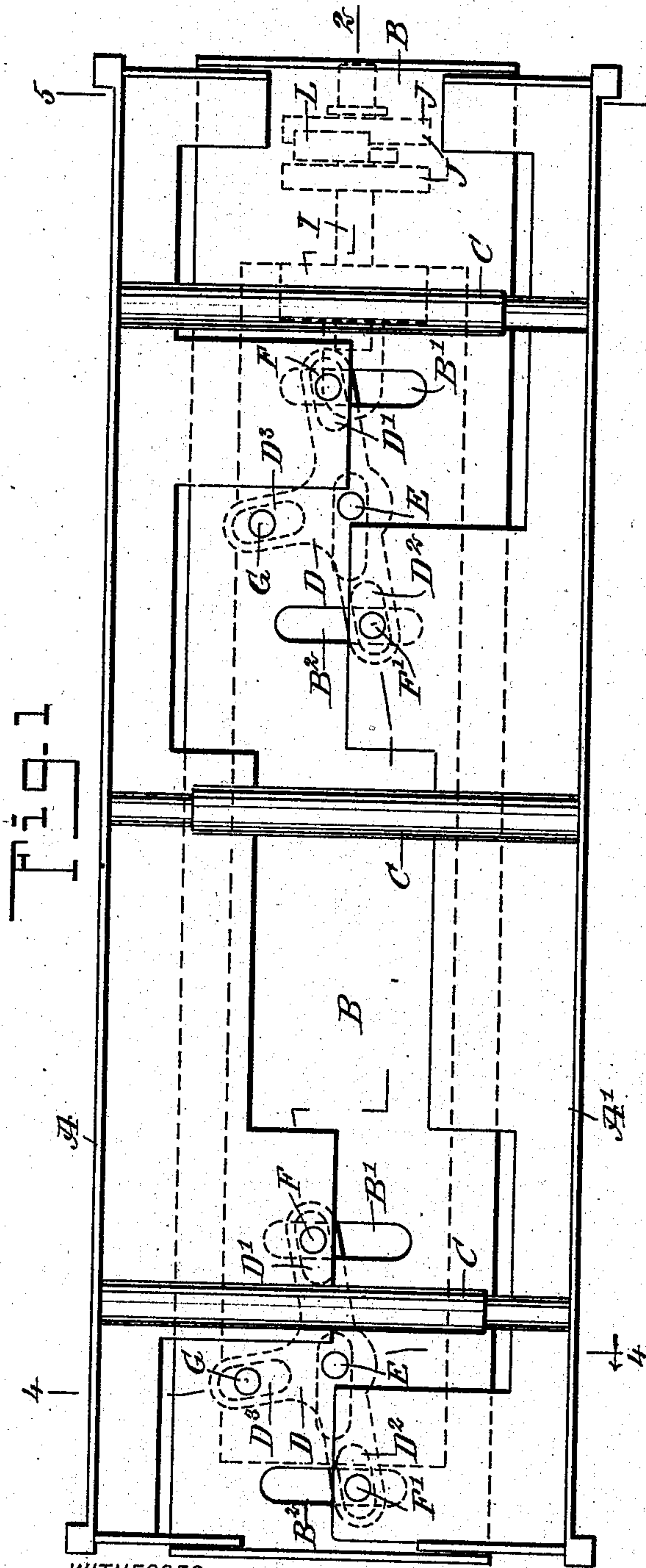


Fig. 1

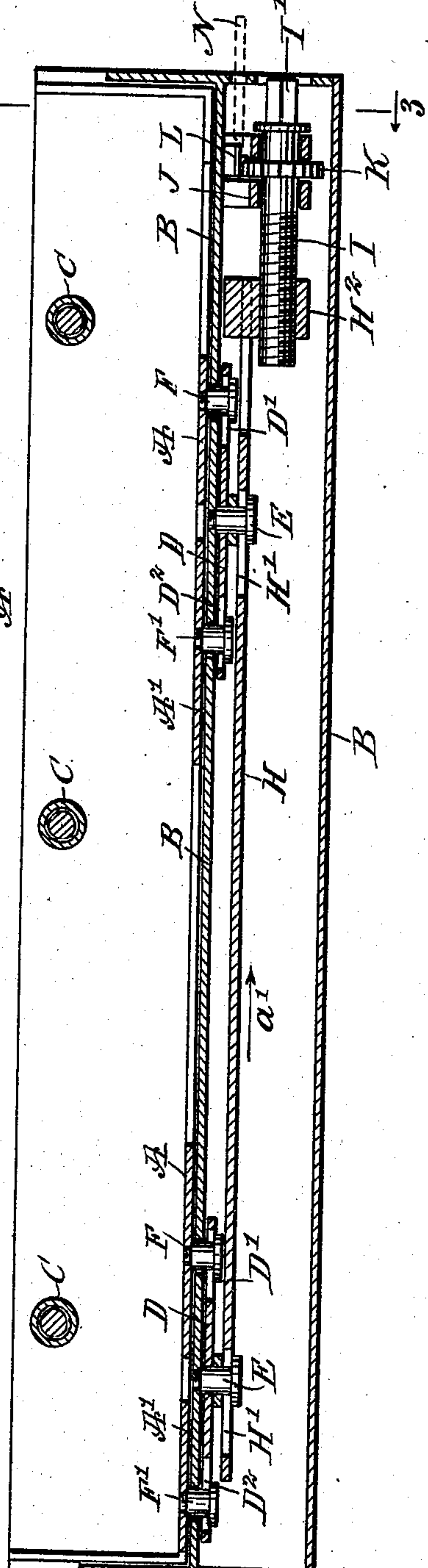


Fig. 2

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3

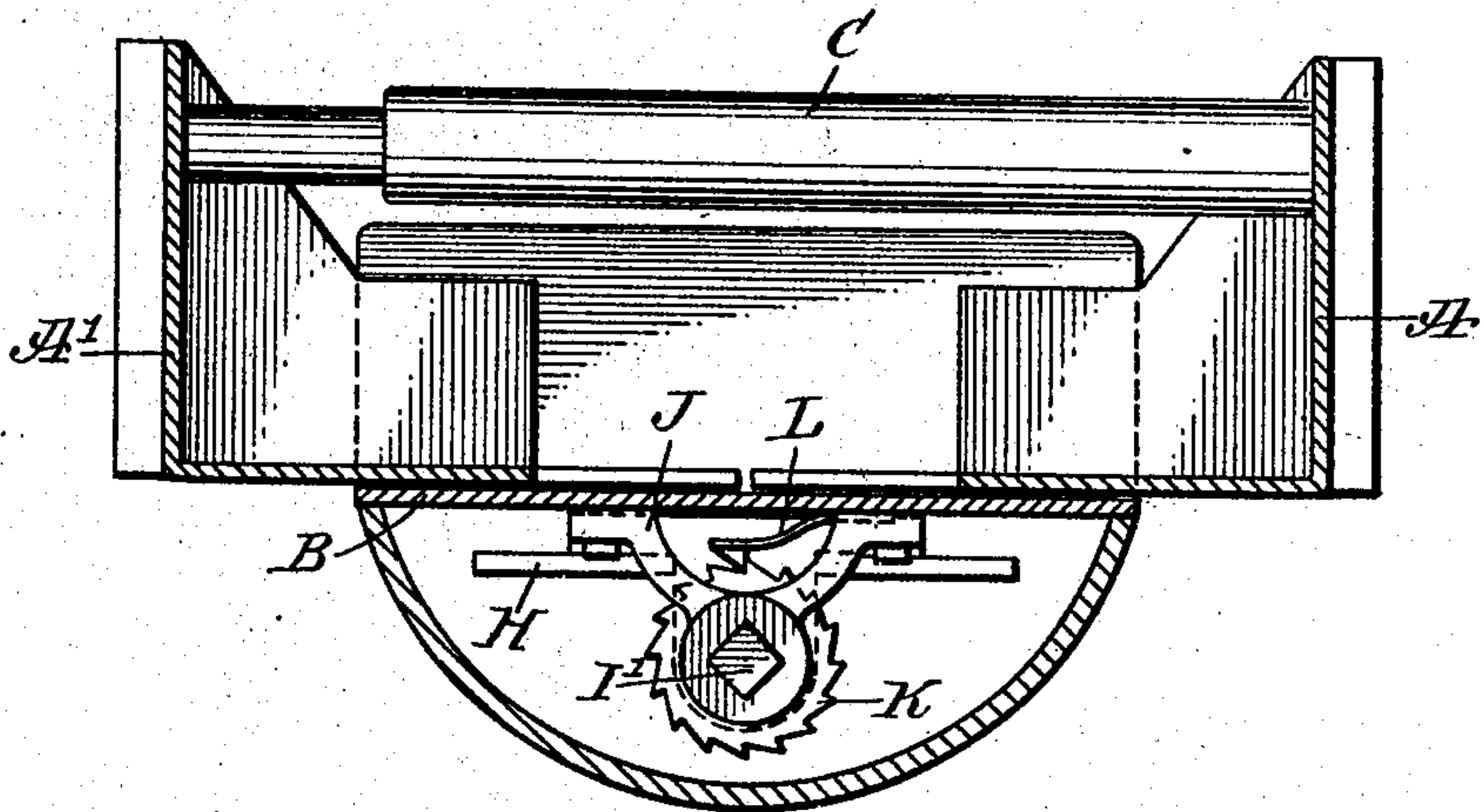


Fig. 4

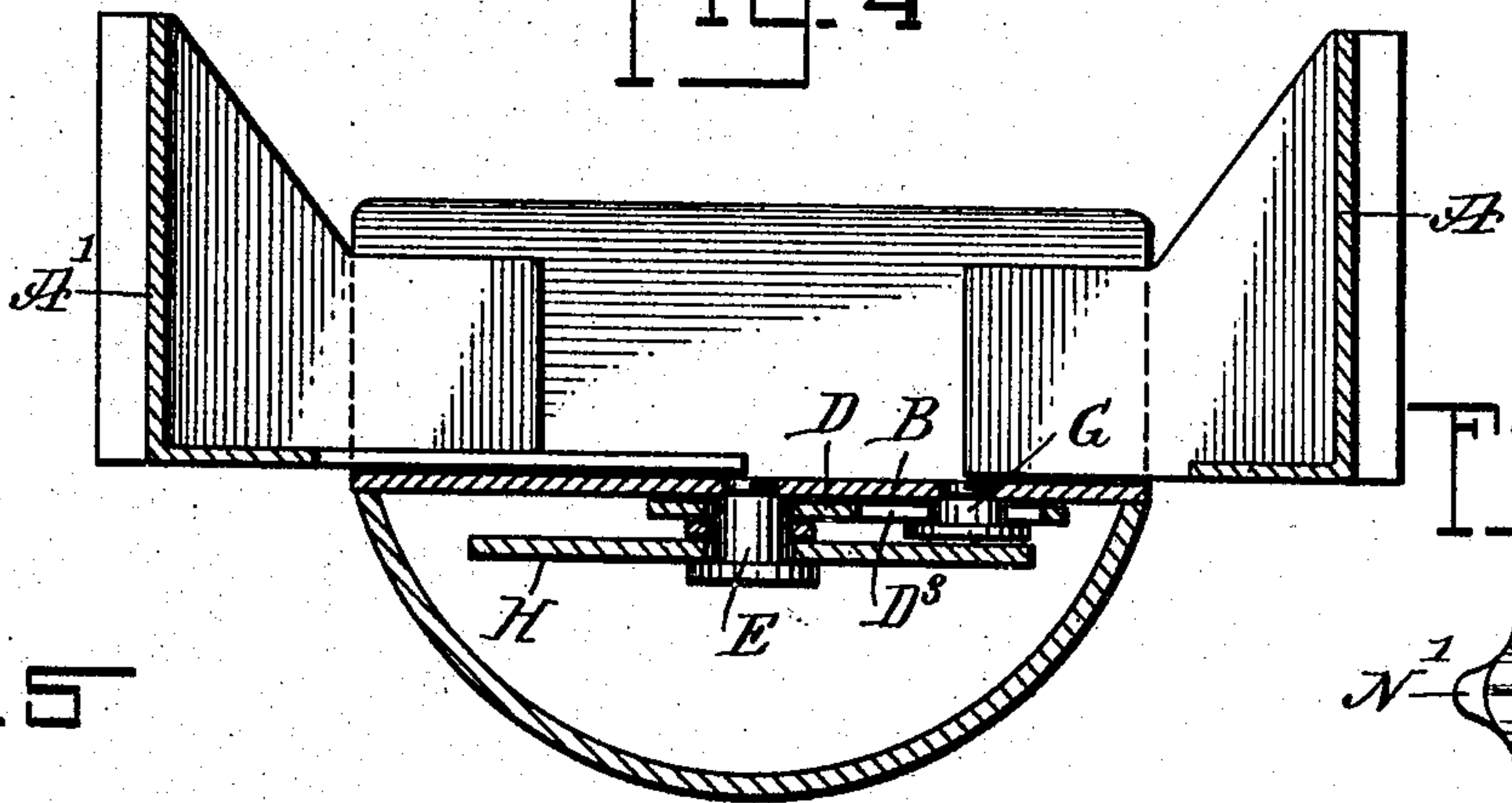


Fig. 5

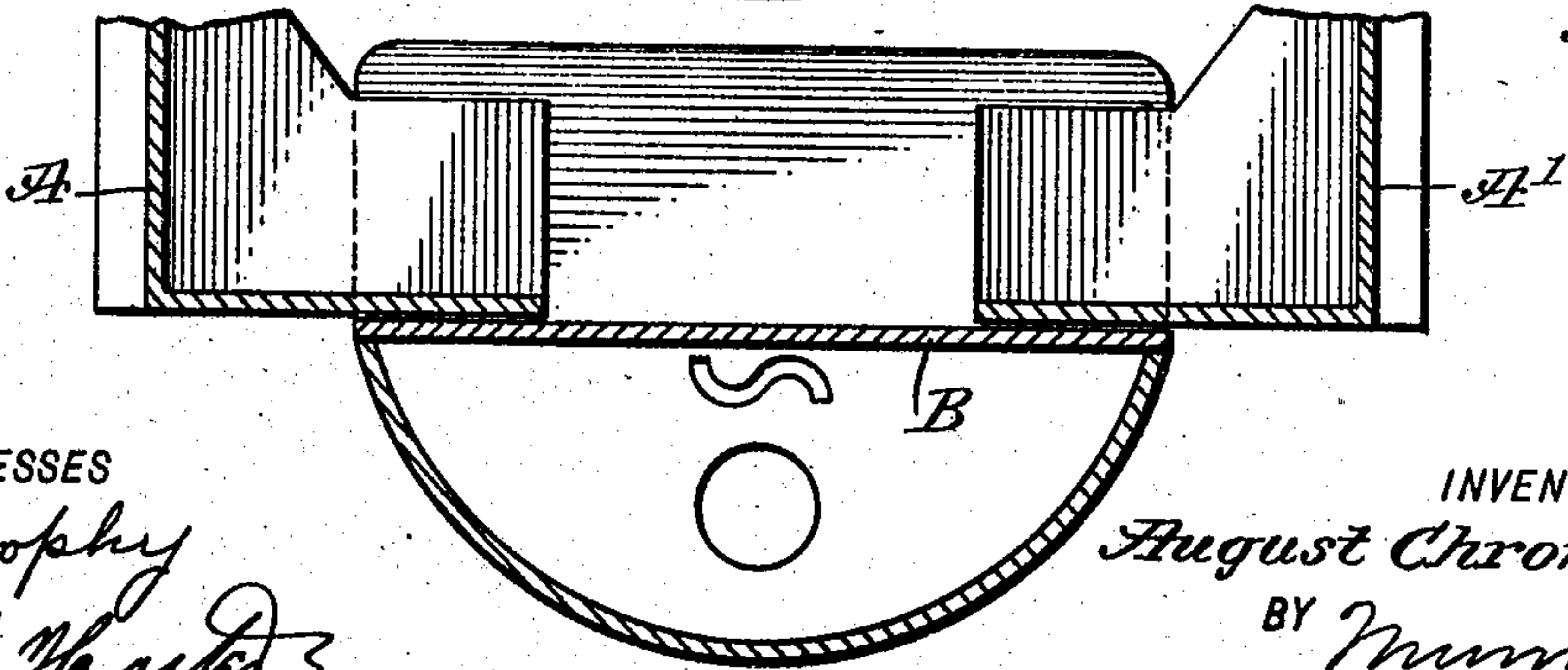
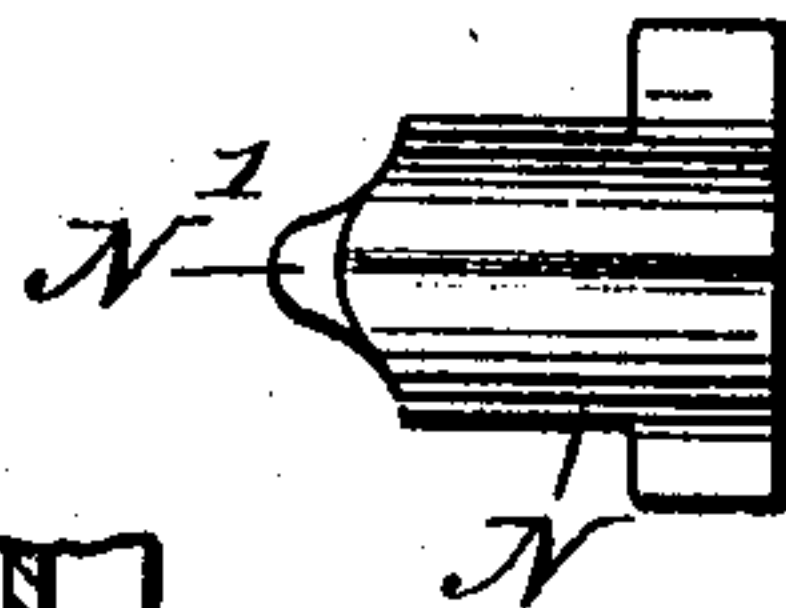


Fig. 6



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UNITED STATES PATENT OFFICE.

AUGUST CHRONIK, OF NEW YORK, N. Y.

LOOSE-LEAF BINDER.

No. 894,601.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed July 1, 1907. Serial No. 381,628.

To all whom it may concern:

Be it known that I, AUGUST CHRONIK, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Loose-Leaf Binder, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved loose leaf binder, which is simple and durable in construction and arranged to permit convenient opening of the binding flanges for the insertion or removal of the leaves and to allow closing of the binding flanges for securely binding the leaves in place, the binder being adapted to be locked against the removal of the leaves by unauthorized persons.

The invention consists of novel features and parts and combinations of the same, which will be more fully described herein-after and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement; Fig. 2 is a longitudinal sectional elevation of the same, on the line 2—2 of Fig. 1; Fig. 3 is a transverse section of the same on the line 3—3 of Fig. 2; Fig. 4 is a similar view of the same on the line 4—4 of Fig. 1; Fig. 5 is a similar view of the same on the line 5—5 of Fig. 1; and Fig. 6 is a plan view of the key for unlocking the binder.

The binding flanges A, A' are mounted to slide toward and from each other across the back plate B, and the said binding flanges A, A' are provided with telescoping posts C for the reception of the leaves in the usual manner, and on the said binding flanges are secured the covers (not shown).

The binding flanges A, A' are actuated by the use of two three-armed levers D, D mounted to turn on pivots E secured to the back plate B and depending therefrom, as plainly indicated in Fig. 2. The diametrically extending arms of the three-armed levers D, D are provided with elongated slots D', D² into which project studs F, F' secured to the binding flanges A, A', the said studs F, F' projecting through transversely extending elongated slots B', B² formed in the back plate B. The third arms of the levers D, D are provided with elongated slots D³ into

which project studs G attached to an actuating plate H having longitudinally extending elongated slots H' through which project the pivots E, so that the actuating plate H is mounted to slide longitudinally, as will be readily understood by reference to Fig. 2.

One end of the actuating plate is provided with a depending nut H² into which screws a screw rod I mounted to turn in a bearing J depending from the back plate B, and the outer square end I' of the screw rod I is adapted to be engaged by a suitable crank arm, to permit the user of the loose leaf binder to turn the screw rod I with a view to shift the actuating plate longitudinally, that is, according to the direction in which the screw rod I is turned. Now when moving the actuating plate H in the direction of the arrow a' then the studs G impart a swinging motion to the levers D, D, which by the studs F, F' impart a transverse and outward sliding movement to the binding flanges A, A', to open the same for the insertion or removal of a loose leaf on the telescoping posts C. When the actuating plate H is shifted in the inverse direction of the arrow a' then the levers D, D receive a return swinging motion by the action of the studs G, and the binding flanges A, A' are lifted toward each other by the action of the studs F, F'. Thus the binding flanges A, A' are closed to securely bind the new leaves in position between the binding flanges.

In order to lock the screw rod I against turning by unauthorized persons, the following device is provided: On the screw rod I is secured a toothed wheel K engaged by a spring pawl L attached to the back plate B, to hold the toothed wheel K and consequently the screw rod I normally against turning. The spring pawl L is adapted to be lifted out of engagement with the toothed wheel K by the use of a key N inserted by the user of the device through a key-hole in one end of the back plate B, the forward beveled end N' of the key being adapted to pass under the spring pawl L, to lift the same out of engagement with the toothed wheel K. Thus as long as the key N remains inserted the pawl L is lifted out of engagement with the ratchet wheel K, to permit the operator to turn the screw rod I in either direction for shifting the actuating plate H longitudinally as above explained, and with a view to open or close the binding flanges A, A'. When the key N is withdrawn, the pawl L by its

own resiliency again engages the toothed wheel K, to lock the same and the screw rod I against turning.

From the foregoing it will be seen that the three-armed levers D, D can be readily actuated, to impart an easy transverse sliding movement to the binding flanges A, A' for moving the latter into an open or a closed position.

10 The loose leaf binder shown and described is composed of comparatively few parts, which can be cheaply manufactured, readily assembled and are not liable easily to get out of order.

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

1. A loose leaf binder comprising a back plate, parallel binding flanges movable transversely thereof, three armed levers fulcrumed at their middle and having an arm pivotally connected with each binding flange for moving the same toward and from each other, an actuating plate having longitudinal movement and pivotally connected with the third arm of each lever for imparting a swinging motion to the same on moving the said plate longitudinally, and means for moving the plate comprising a threaded rod connected
20 with the back plate, and a nut connected
25 with the back plate, and a nut connected
30 with the back plate, and a nut connected

with the actuating plate through which the rod is threaded, the rod being provided with a square head for engagement by a key.

2. A loose leaf binder comprising a back plate, parallel binding flanges movable transversely thereof, three armed levers fulcrumed at their middle and having an arm pivotally connected with each binding flange for moving the same toward or from each other, an actuating plate having longitudinal movement and pivotally connected with the third arm of each lever for imparting a swinging motion to the same on moving the said plate longitudinally, and means for moving the plate comprising a threaded rod connected
35 with the back plate, and a nut connected
40 with the actuating plate through which the rod is threaded, the rod being provided with a square head for engagement by a key, a ratchet wheel on the rod, and a spring pawl
45 engaging the ratchet wheel for retaining the actuating plate in adjusted position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUST CHRONIK.

Witnesses:

THEO. G. HOSTER,
EVERARD B. MARSHALL.