

No. 753,682.

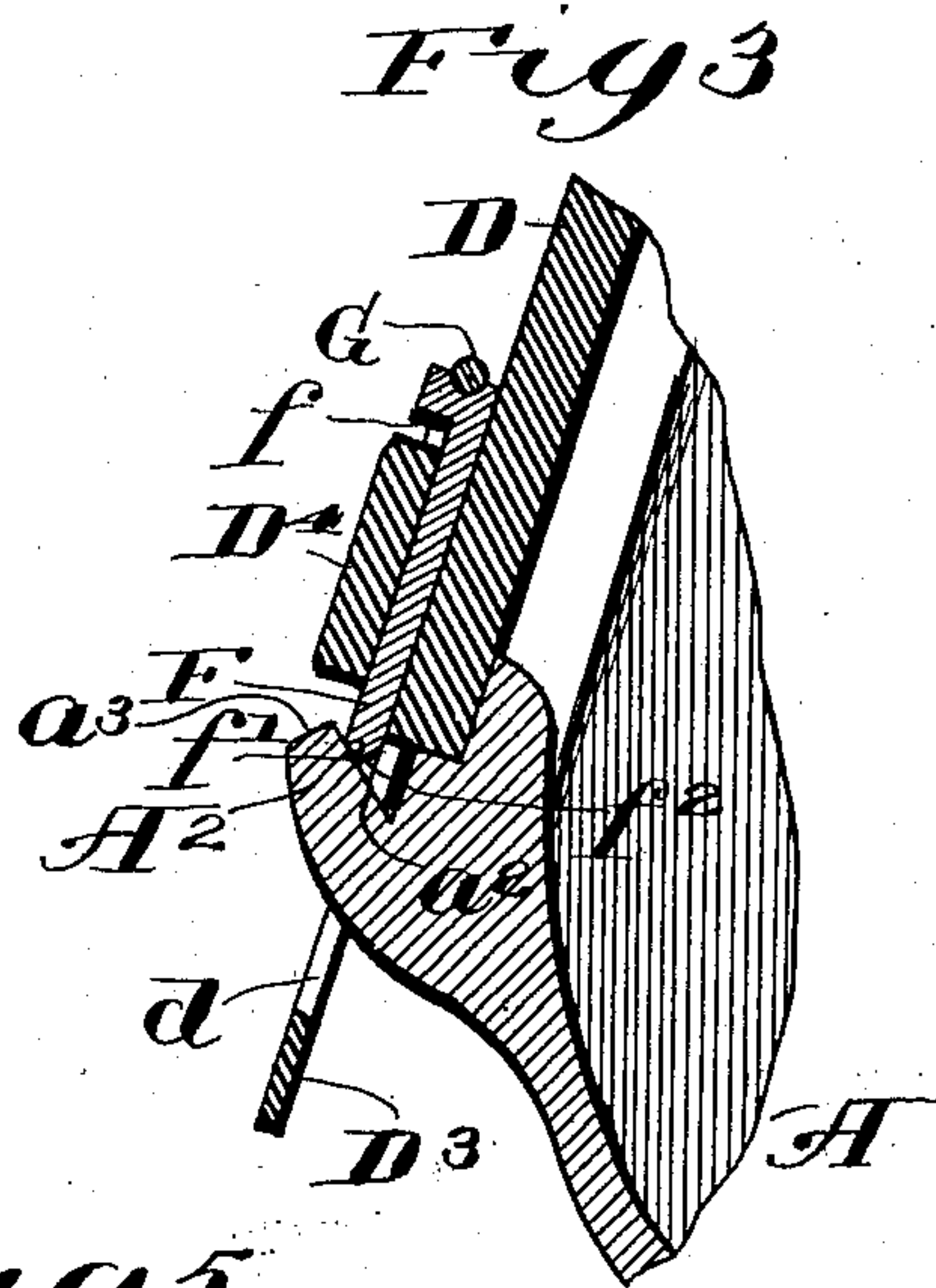
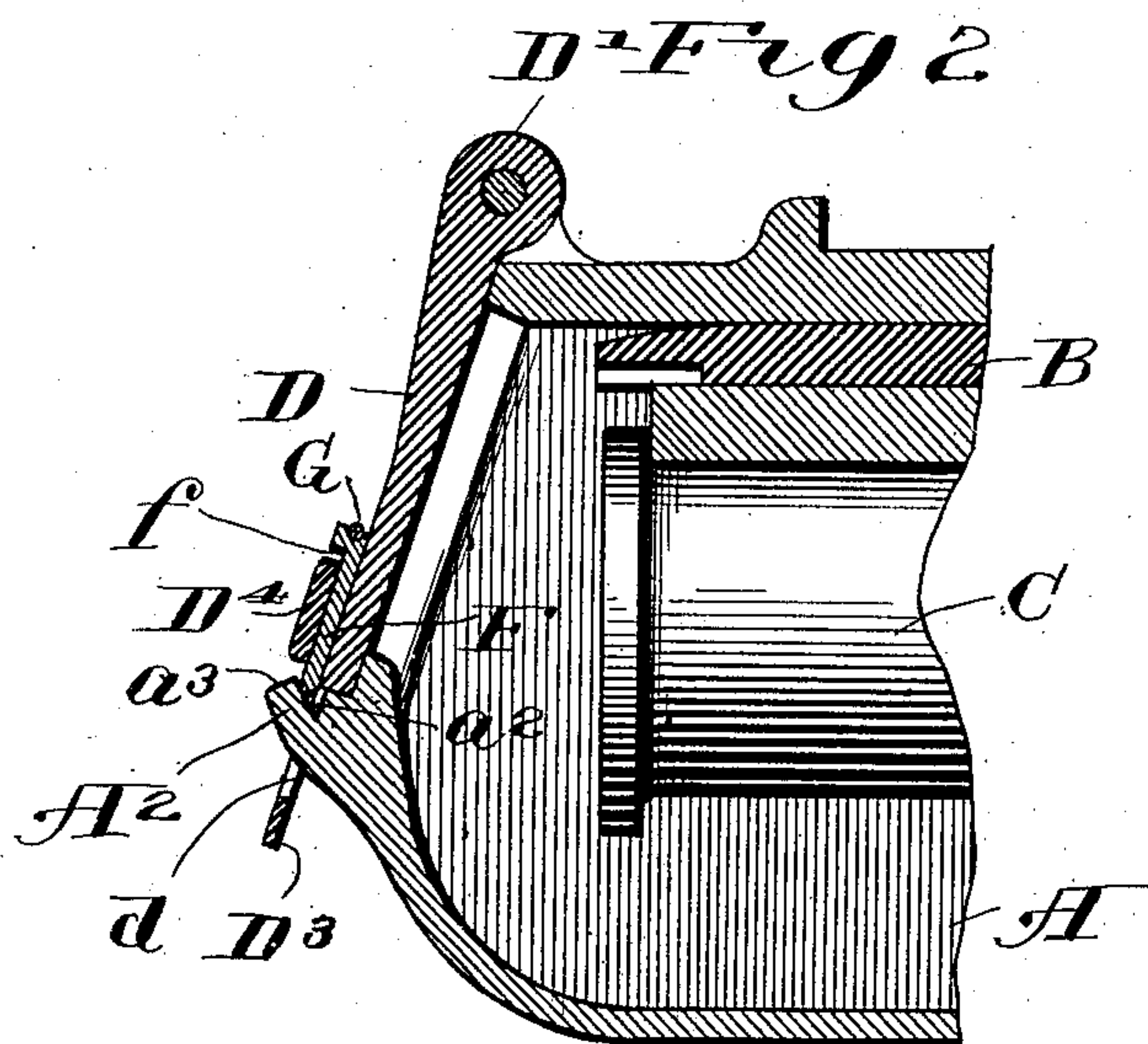
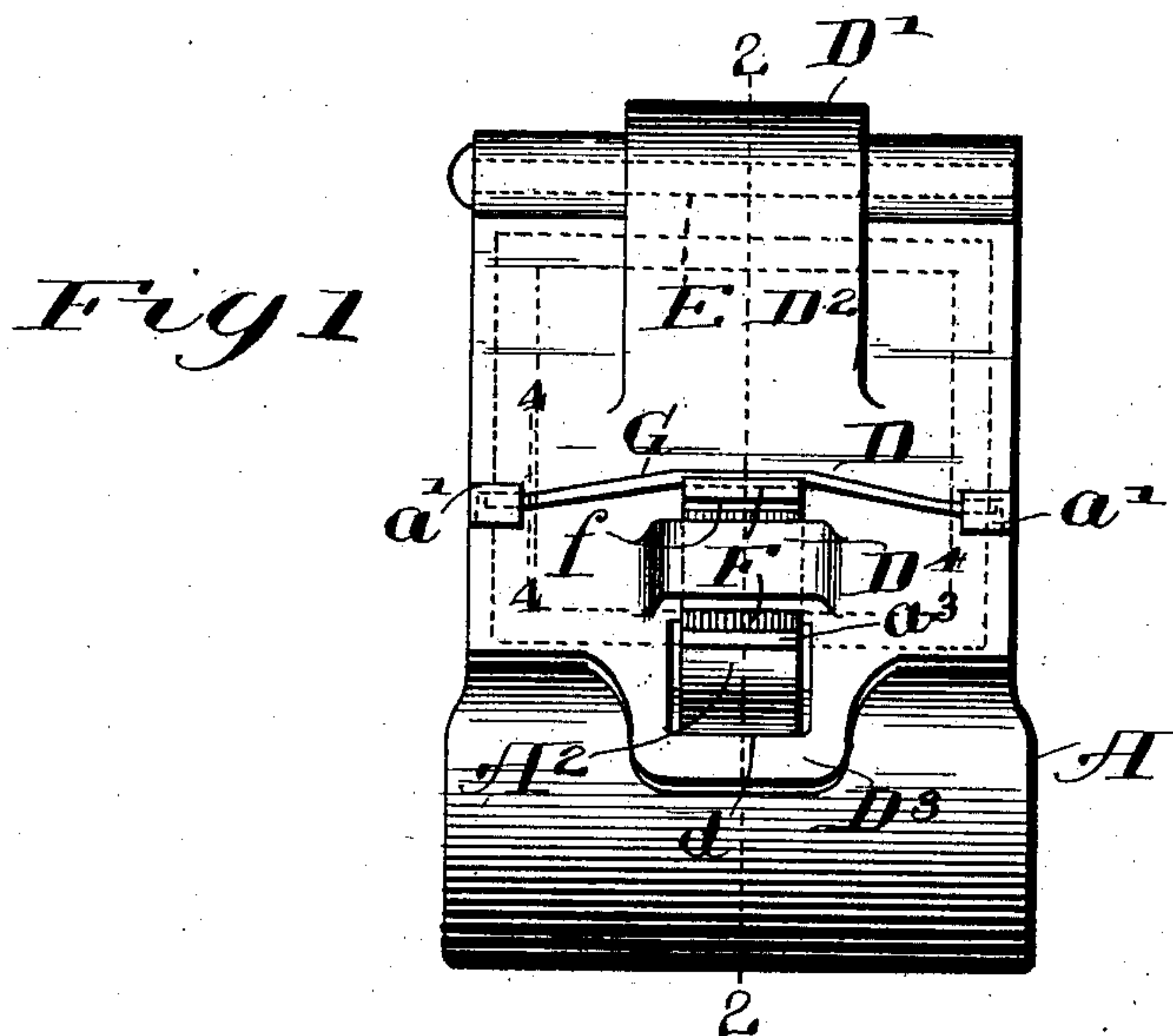
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L. R. DEWEY.

LOCKING DEVICE FOR JOURNAL BOX LIDS.

APPLICATION FILED JUNE 29, 1903.

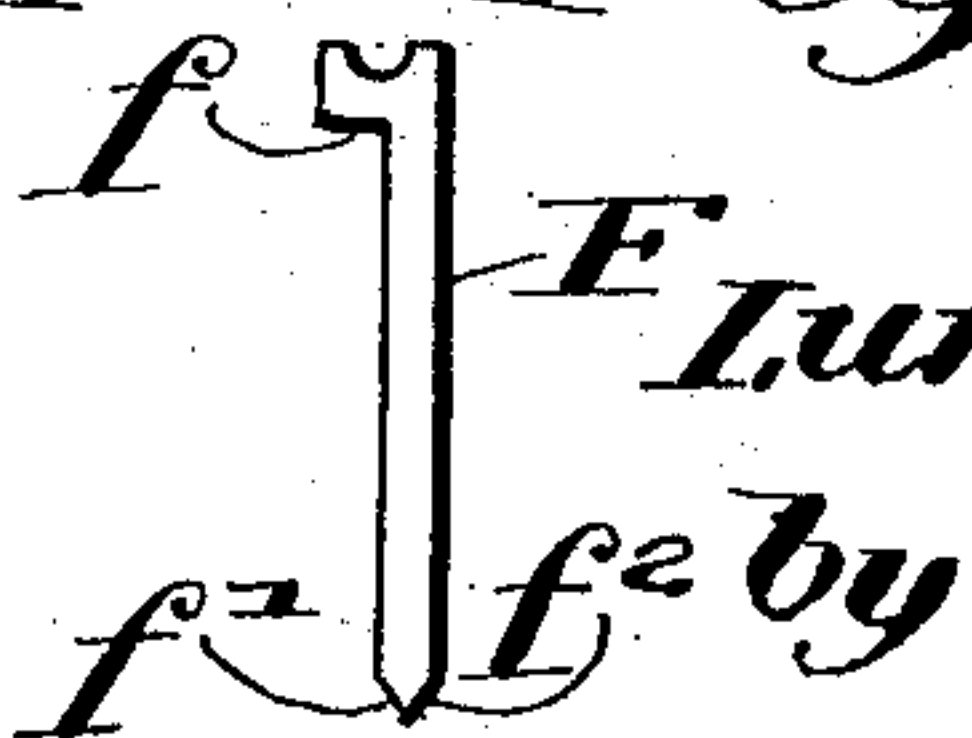
NO MODEL.



*Fig 4* *Fig 5*

*Witnesses:-*

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# UNITED STATES PATENT OFFICE.

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## LOCKING DEVICE FOR JOURNAL-BOX LIDS.

SPECIFICATION forming part of Letters Patent No. 753,682, dated March 1, 1904.

Application filed June 29, 1903. Serial No. 163,484. (No model.)

*To all whom it may concern:*

Be it known that I, LUMAN R. DEWEY, of Alliance, in the county of Boxbutte and State of Nebraska, have invented certain new and useful Improvements in Locking Devices for Journal-Box Lids; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in journal-boxes of that class used for railway and other cars, and relates more specifically to the construction of a locking device for the lid or cover of such journal-boxes.

The invention consists in the matters herein-after set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a front end elevation of a journal-box provided with a locking device made in accordance with my invention. Fig. 2 is a partial longitudinal section taken on line 2 2 of Fig. 1. Fig. 3 is an enlarged section of the locking member or latch and the coacting parts. Fig. 4 is a fragmentary detail section taken on line 4 4 of Fig. 1. Fig. 5 is an edge elevation of the locking member removed from the other parts.

As shown in said drawings, A designates the body of the journal-box, the same consisting of a hollow casting having integral top, bottom, and side walls; B, the bearing or brass, located in the upper part of the box, and C the journal, which projects into said box through the rear wall thereof and which is seated in said bearing or brass.

D designates the lid or cover of the box, which closes the front end thereof and is hinged at its upper margin to the top wall of the box in a familiar manner. The lower margin of the lid is provided with an extension D<sup>3</sup>, which constitutes means by which the lid may be raised either by hand or by the use of an ordinary hook for that purpose. For holding the lid or cover in its closed position a locking device is provided as follows:

F designates a locking member which is located centrally of the outer face of said lid or cover and has sliding engagement therewith. Said locking member is confined and guided in its movement by means of a guide-loop D<sup>4</sup> on the outer face of the lid or cover. When the box-lid is made of cast metal, the loop is formed integral therewith, but may be attached thereto in any other suitable manner. The lower end of said locking member engages an integral stationary locking-lug A<sup>2</sup>, located on the front wall of the box centrally thereof just below the free margin of the principal part of the lid. The lifting extension D<sup>3</sup> is provided with an opening *a*, which is adapted to pass over the locking-lug A<sup>2</sup>, said extension projecting below said lug for engagement with a suitable lifting device. Said locking member and lug are formed to automatically free the locking member from the lug when the lid is raised and to be automatically engaged with said lug when the lid or cover is closed. The locking member is held against the locking-stud A<sup>2</sup> by means of a spring G bearing downwardly thereon. As herein shown said spring has the form of a bar, being made of a wire of sufficient stiffness to give the required resiliency thereto. Said spring extends transversely across the lid and is detachably affixed at its ends to the lid and bears between its ends against the upper margin of the locking member F. The spring is attached to the box-lid by being inserted into downwardly and inwardly opening recesses or notches *a*, formed in lugs *a'*, located one at each side of the box-lid. The upper and outer parts of said notches are closed, and the spring is held from endwise shifting by the end walls of the sockets and is held in its proper horizontal position between the locking member F on the one side and the top walls of the sockets *a* on the other side. The spring is inserted in said sockets from below. The locking member F is provided with a downwardly-facing stop-shoulder *f*, formed on the under face of a flange rising from the upper margin of the locking member and adapted to engage the



upper margin of the guide-loop  $D^4$  to prevent said locking member sliding downwardly out of said guide when the lid is open and the locking member is therefore out of engagement with the locking-lug. The lower end margin of said locking member  $F$  is provided with oppositely-beveled or oblique surfaces  $f'$   $f^2$ . The former beveled or oblique surface, which faces outwardly, is adapted to engage an inwardly-facing beveled or oblique face  $a^2$  of the locking-lug  $A^2$  when said locking member is in its locking position. The formation of said inwardly-facing beveled surface  $a^2$  of the lug constitutes an upwardly-opening notch or recess in the lug, which receives the lower end of the locking member  $F$  when in its locking position. By reason of the interacting oblique faces  $f'$   $a^2$  of the locking member  $F$  and lug  $A^2$ , respectively, when force is applied to the projection  $D^3$  to raise or open the lid the locking member is forced upwardly against the action of the spring  $G$  until it is released from the lug  $A^2$ , the lid being thereafter free or unhampered in its rising or opening movement. The locking-lug  $A^2$  is also provided with an outwardly-beveled or oblique surface  $a^3$ , which is adapted to be engaged by the inwardly-beveled surface  $f'$  of the locking member when the lid is forced into its lowermost or closed position, and the coacting beveled surfaces  $f'$   $a^3$  act to force said locking member inwardly or upwardly, so as to permit the lower end thereof to pass within the locking-notch of the lug  $A^2$  and to lock the lid in its closed position. In this manner it will be seen that the locking member  $F$  acts in conjunction with the spring  $G$  to lock the lid  $D$  in its closed position with sufficient firmness to prevent the lid from being accidentally opened by shocks and jars incident to the usage of the box in the travel of a car to which it is attached, while at the same time said locking parts are so constructed and arranged that when force is applied to the extension  $D^3$  to raise the lid the locking member is retracted to permit the lid to be readily opened and is again retracted by engagement of the beveled or oblique surface  $f^2$   $a^3$  when the lid drops downwardly into its closed position to permit the lower end of the locking member to enter the notch of the locking-lug. The lid may be thus raised by the usual hook employed to open the lid for the purpose of inspecting the interior of the boxes, and force applied to the lid to close the same acts to automatically reengage the locking member  $F$  with the locking-lug  $A^2$  to hold the lid in its closed position.

The locking device described is extremely simple and effective and adds but little cost to the journal-box. The manner in which the parts are locked and unlocked is of great practical advantage, as the lid may be opened by the use of a single hand, and the lock requires no manual manipulation to lock the lid when closed. The form of interacting

faces of the locking member and lug is such as to hold the lid tightly closed and to prevent the entrance of dust between the lid and box.

I claim as my invention—

1. The combination with a journal-box and a hinged lid therefor, of an endwise-sliding, spring-pressed locking member on the lid, the box being provided with a notched locking-lug, said locking member and the lug being each provided with oppositely-inclined contact-faces which coact to automatically shift the locking member endwise in a manner to pass the locking-lug both when the lid is being opened and when it is being closed.

2. The combination with a journal-box and a hinged lid therefor, of a sliding locking member on the lid, the box being provided with a notched locking-lug, and a spring for holding said locking member engaged with the notch of said lug, there being a shoulder on the lid coöperating with a shoulder on the locking member to limit the outward movement of said locking member, said locking member and the lug being each provided with oppositely-inclined contact-faces which coact to automatically shift the locking member inwardly in a manner to pass the locking-lug both when the lid is being opened and when the lid is being closed.

3. The combination with a journal-box and a hinged lid therefor, of a sliding locking member on said lid which projects beyond the margin thereof, the box being provided with a notched locking-lug adapted for engagement by the projecting end of said locking member, and a spring arranged transversely across said lid and attached at its ends thereto and bearing between its ends against said locking member.

4. The combination with a journal-box, and a hinged lid therefor, of a sliding locking member on said lid which projects beyond the margin thereof, a guide on said lid for the locking member, a stop on the locking member adapted for engagement with said guide, said box being provided with a notched lug adapted for engagement by the projecting end of the locking member, and a spring arranged transversely across said lid and attached at its ends thereto and bearing between its ends against said locking member.

5. The combination with a journal-box, and a hinged lid therefor, of a sliding locking member on said lid which projects beyond the same, a guide on said lid for said locking member, a stop on the locking member adapted to engage said guide, said box being provided with a notched lug adapted for engagement by the projecting end of the locking member and a spring arranged transversely across said lid and attached at its ends thereto and bearing between its ends against said locking member, said locking member and lug being provided with oppositely-inclined contact-faces which coact to shift the locking member in-



wardly to pass the locking-lug both when the lid is being opened and when it is being closed.

6. The combination with a journal-box and a hinged lid therefor, of a locking member having sliding engagement with said lid and projecting beyond the lower margin of the same, said box being provided with a locking-lug adapted to receive the projecting end of said locking member, a spring for forcing said locking member into engagement with said lug, and a lifting-piece projecting downwardly from said lid, said lifting-piece being provided with an opening adapted to pass over said locking-lug.

7. The combination with a journal-box and a hinged lid therefor, of a locking member having sliding engagement with said lid and projecting beyond the lower margin thereof, said box being provided with a notched locking-lug adapted to receive the projecting end of the locking member, and a spring arranged transversely across the box, the lid being provided with lugs at the sides thereof which have notches for receiving the ends of said

spring, said spring bearing between its ends against said locking member.

8. The combination with a journal-box and a hinged lid therefor, of a locking member having sliding engagement with said lid and projecting beyond the lower margin thereof, said box being provided with a notched locking-lug adapted to receive the projecting end of the locking member, and a spring arranged transversely across the box, the lid being provided at the sides thereof with lugs which have downwardly-opening notches which are closed at their tops and outer ends and adapted to receive the ends of the spring from below, said spring bearing between its ends against said locking member.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 11th day of April, A. D. 1903.

LUMAN R. DEWEY.

Witnesses:

WILLIAM L. HALL,  
LESSING ROSENTHAL.