

No. 710,966.

Patented Oct. 14, 1902.

E. B. GOODMAN.
LOOSE LEAF LEDGER.

(Application filed Aug. 23, 1901.)

(No Model.)

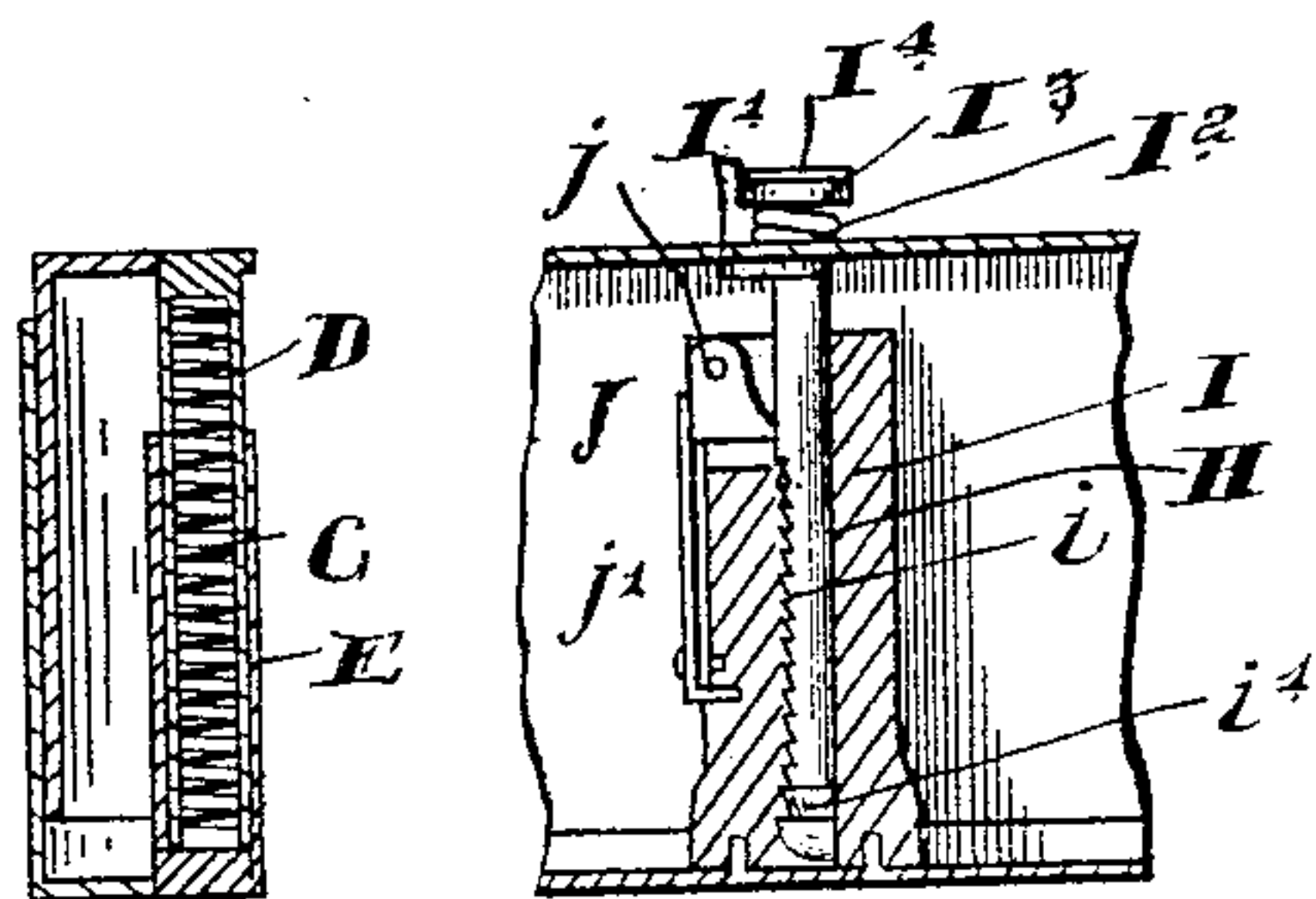
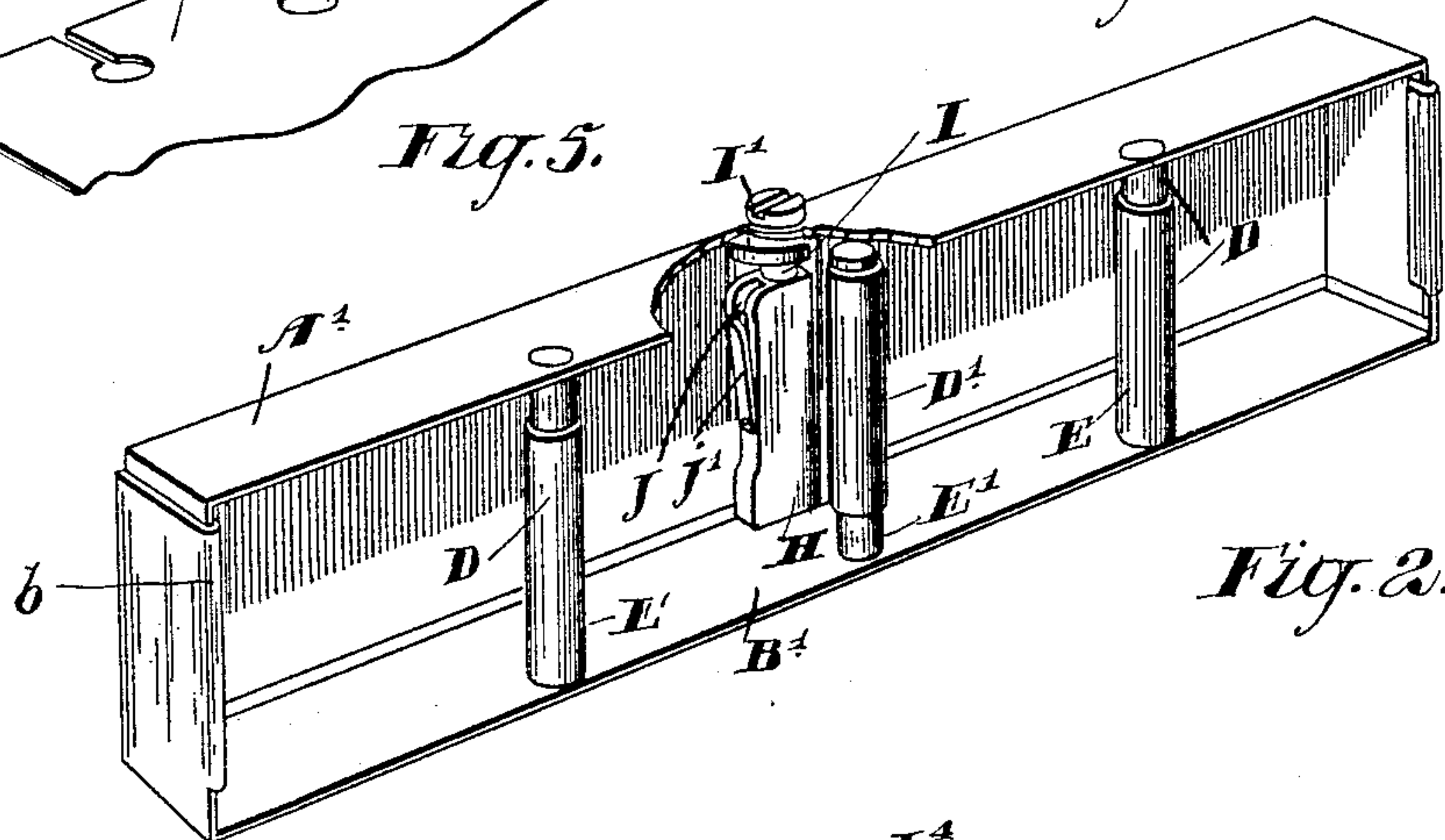
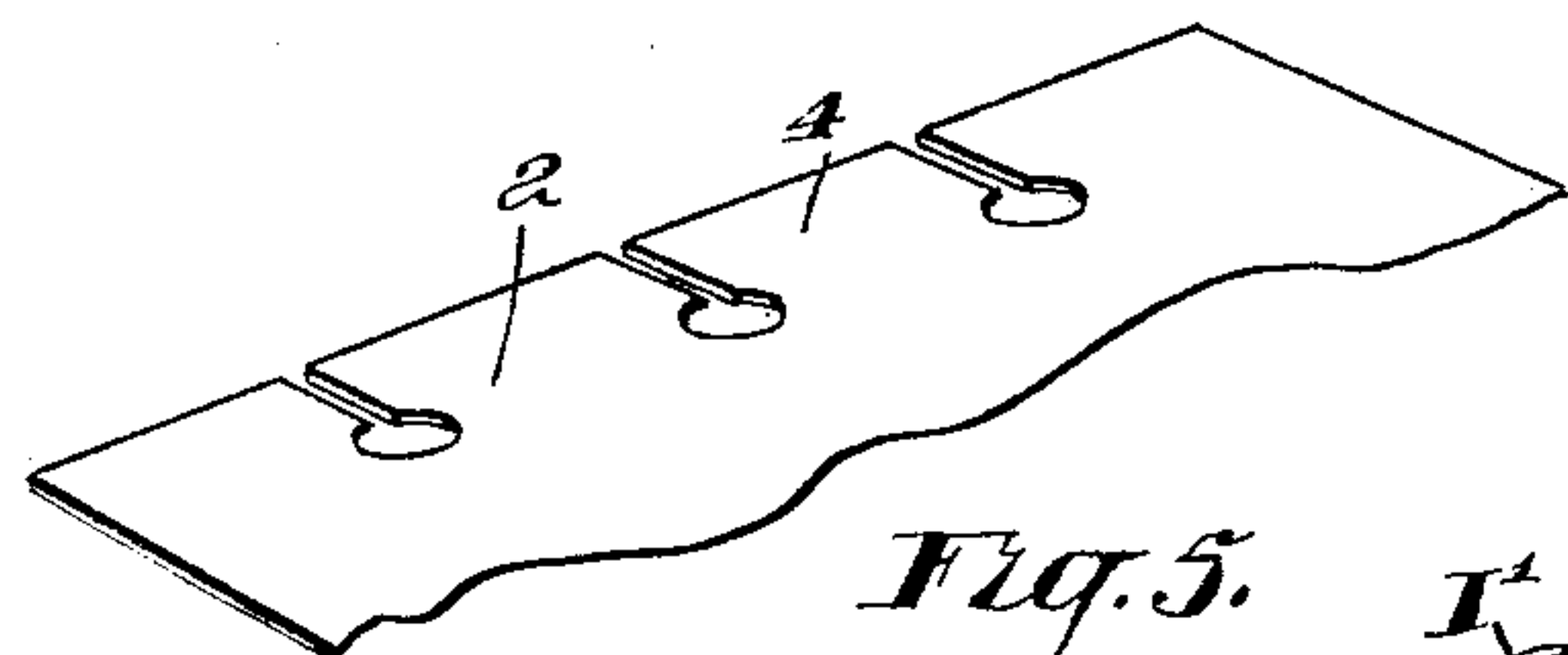
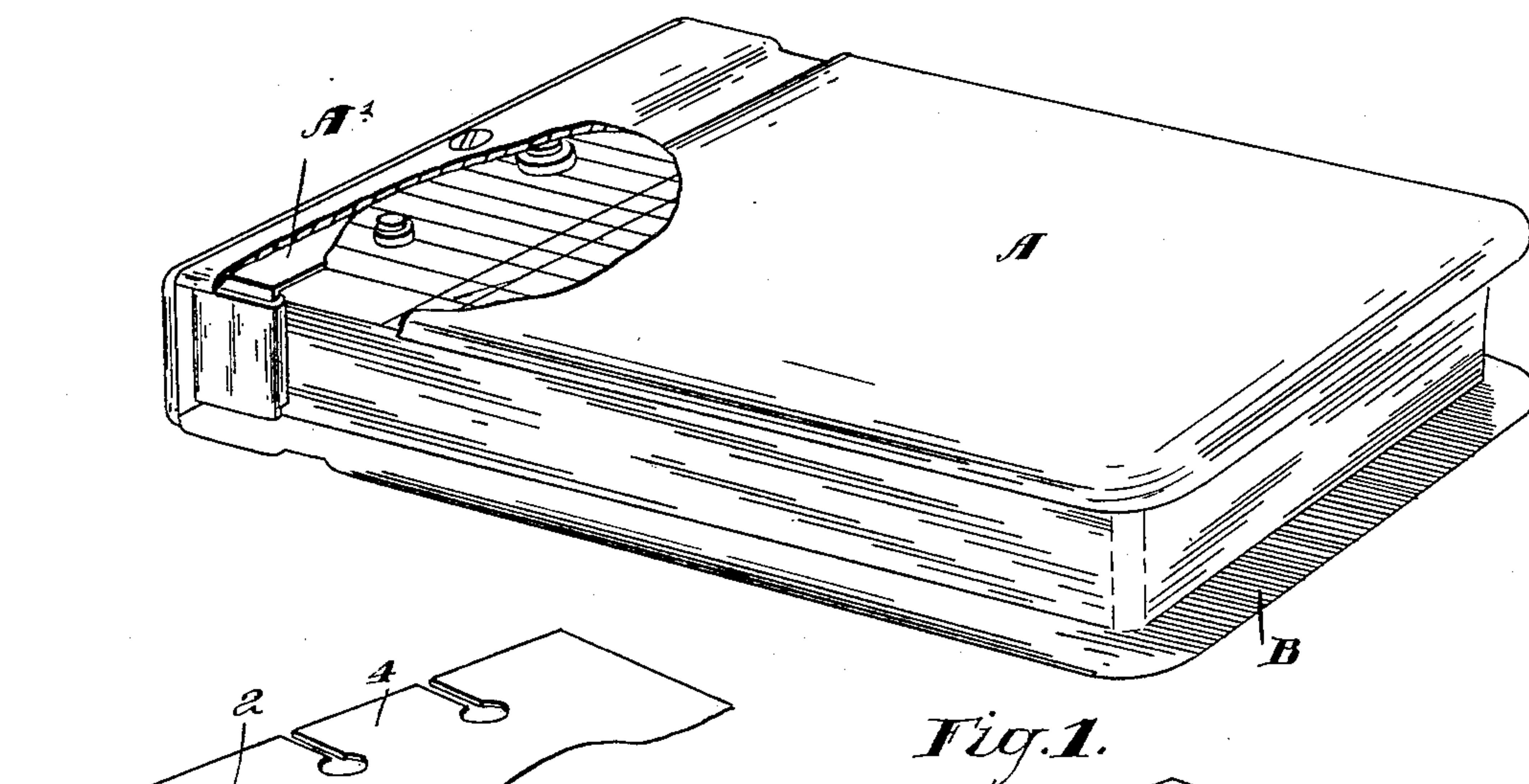


Fig. 4

Fig. 3.

Witnesses.
L. Trumble
R. Shields

Inventor.
E. B. Goodman.
By J. Petherstonhaugh & Co.
Attys.

UNITED STATES PATENT OFFICE.

EDWIN BENJAMIN GOODMAN, OF TORONTO, CANADA, ASSIGNOR TO THE
BROWN BROTHERS, LIMITED, OF TORONTO, CANADA.

LOOSE-LEAF LEDGER.

SPECIFICATION forming part of Letters Patent No. 710,966, dated October 14, 1902.

Application filed August 23, 1901. Serial No. 73,052. (No model.)

To all whom it may concern:

Be it known that I, EDWIN BENJAMIN GOODMAN, machinist, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Loose-Leaf Ledgers, of which the following is a specification.

My invention relates to improvements in loose-leaf ledgers; and the object of the invention is to devise a simple, cheap, and effective loose-leaf ledger in which exposed springs will be dispensed with and in which the sheets may be inserted separately and held in position and which will lock automatically in any expanded position within certain limits; and it consists, essentially, of a top and bottom cover provided with end cases fitting one within the other, said cases being provided with hollow posts also telescopically arranged and provided with an internal spiral spring and said cases being also provided with a central ratchet-lock constructed and arranged as hereinafter more particularly explained.

Figure 1 is a perspective view of a loose-leaf ledger constructed in accordance with my invention, showing it partially filled and partially broken away to exhibit the construction. Fig. 2 is a detail of the end casings as fitted together with portion broken away to exhibit the form of lock. Fig. 3 is a longitudinal section through the lock. Fig. 4 is a cross-section showing the hollow posts and spiral spring locked therein. Fig. 5 is a detail of the end of one of the perforated sheets forming one of the leaves of the ledger.

In the drawings like characters of reference indicate corresponding parts in each figure.

A is the top cover, which is suitably affixed to the end casing A', and B is the bottom cover, which is suitably affixed to the bottom casing B'. The top and bottom casings A' and B' are substantially L-shaped in cross-section, and the sides of the bottom casing are bent inwardly to form guideways *b*, in which the sides of the top casing A' have vertical movement.

D D are hollow posts which are suitably secured to the top casing near the edge thereof, and D' is a hollow post secured at an equal

distance from the posts D. The post D' is of greater diameter than the post D.

E represents hollow posts corresponding in size to the post D and secured to the bottom casing B near the edge and fitting the post D.

E' is a hollow post secured at equal distances from the post E and fitting closely within the hollow post D'.

G represents spiral springs which extend between the top and bottom of each pair of telescopic posts. It will be noticed that as the posts D and E are of the same diameter that the sheet 2, having the circular holes 3 and slits 4 extending out to the end of the sheet, will fit the posts D', E, and E, as the hole 3 is of substantially corresponding diameter to such posts. It will also be seen that necessarily the position of the paper will be maintained relatively to the posts, so that there would be no danger of pinching and gripping the paper after it is inserted and located in position, as hereinafter described.

H is a socket secured to the bottom casing B'.

I is a pin which extends through the upper casing downwardly into the socket H. The pin I is provided with a ratchet-rack *i* and a ratchet-shaped groove *i'*.

J is a dog pivoted at *j* in the slotted top of the socket H, and *j'* is a flat spring which is designed to hold such dog in engagement with the side of the pin I. The pin I has a quadrant I' secured to the upper end thereof underneath the top of the casing, one straight face of which is normally held against the back of the casing A by means of the spiral spring I², one end of which extends into the knob I³ at the top of the pin I and the other end into the casing A. The knob I³ is provided with a cross-slit I⁴ for the insertion of a key.

By inserting the key in the slit I⁴ of the knob I³ the pin I may be turned so as to bring the smooth side of the pin opposite the dog J, the limit of turn being determined by the straight side of the quadrant I', opposite the straight side of such quadrant hereinbefore mentioned. The casing A' and top cover A may while such pin is held turned around in this position be raised up sufficiently to put in as many leaves of the ledger as may be re-

quired. Immediately the key is released the spring I² will force the pin backwardly into the normal position, (shown in Fig. 3,) whereupon such casing A' may be pressed downwardly and when tight enough it will be retained by the dog J engaging with the ratchet-rack i.

It will now be seen that my loose-leaf ledger is self-locking. It will also of course be understood that when loosened, as hereinbefore described, any sheet may be taken out with equal facility.

In former loose-leaf ledgers the springs which force the casings apart, and consequently the covers, were exposed and frequently gripped or mutilated the papers and prevented the proper working of the device. In my form, however, the springs which serve to force the pin I out of the socket H when the key is turned will, being inclosed, not interfere in any manner whatsoever with the papers of the ledger or file.

What I claim as my invention is—

1. The combination with the top casing and bottom casing fitted together as specified, and carrying their respective covers, of a socket attached to the bottom casing, a pin attached

to the top casing and extending through the same into the socket in the bottom, such pin having a ratchet-shaped side, a spring-actuated dog attached to the bottom casing designed to coact with such ratchet-shaped side, a quadrant on the top of the pin and a spiral spring fastened to the pin at one end and to the casing at the opposite end as and for the purpose specified.

2. The combination with the top casing and bottom casing fitted together as specified, and carrying their respective covers, of a socket attached to the bottom casing, a pin attached to the top casing and extending through the same into the socket in the bottom, such pin having a ratchet-shaped side, a spring-actuated dog attached to the bottom casing designed to coact with such ratchet-shaped side, a quadrant on the top of the pin, a spiral spring fastened to the pin at one end and to the casing at the opposite end and the knob provided with a cross-slot as and for the purpose specified.

EDWIN BENJAMIN GOODMAN.

Witnesses:

B. BOYD,

M. MACLAREN.