

No. 847,301.

PATENTED MAR. 12, 1907.

G. A. WOODMAN.

JOURNAL BOX.

APPLICATION FILED DEC. 3, 1906.

2 SHEETS—SHEET 1.

Fig. 1

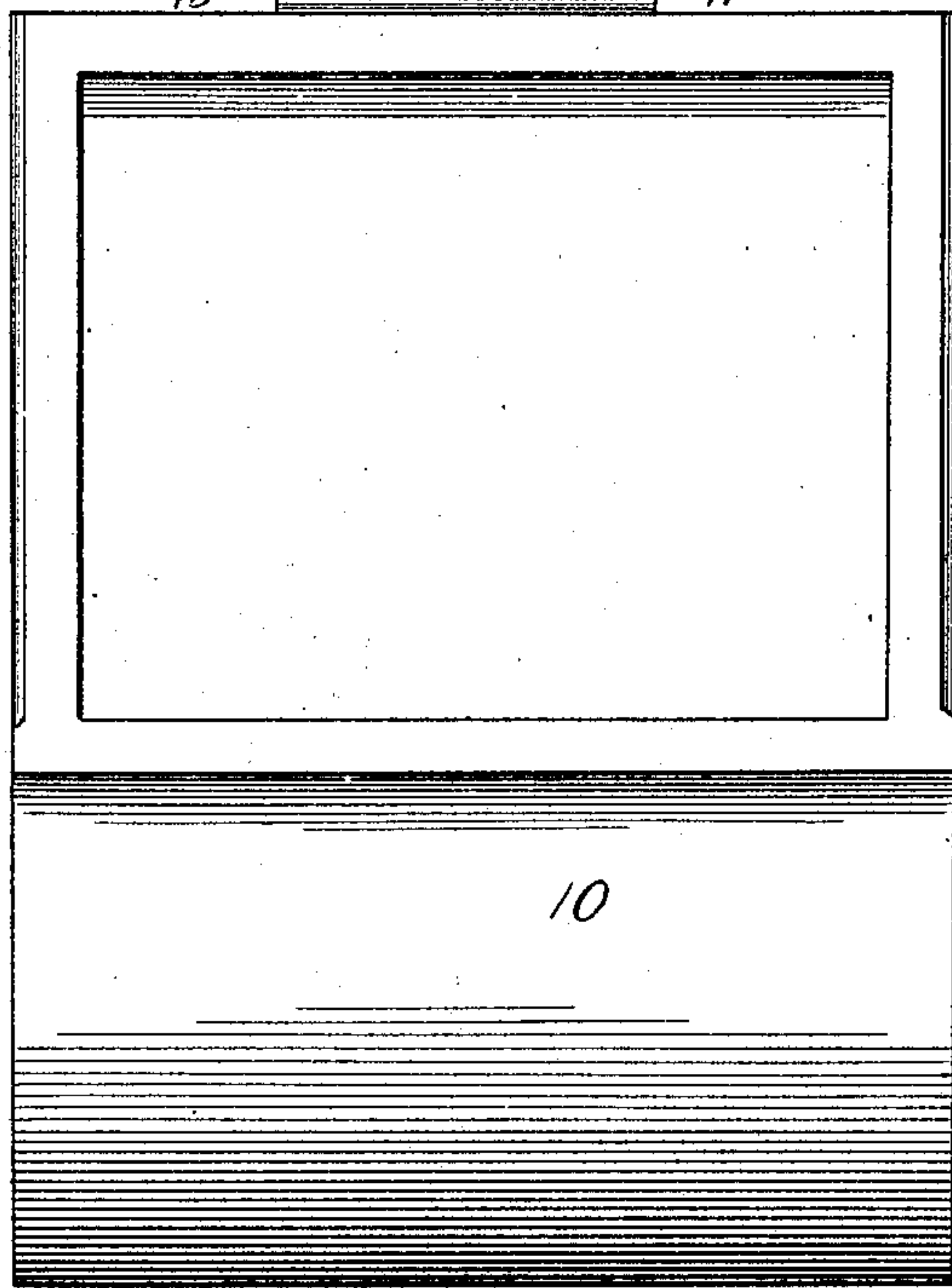
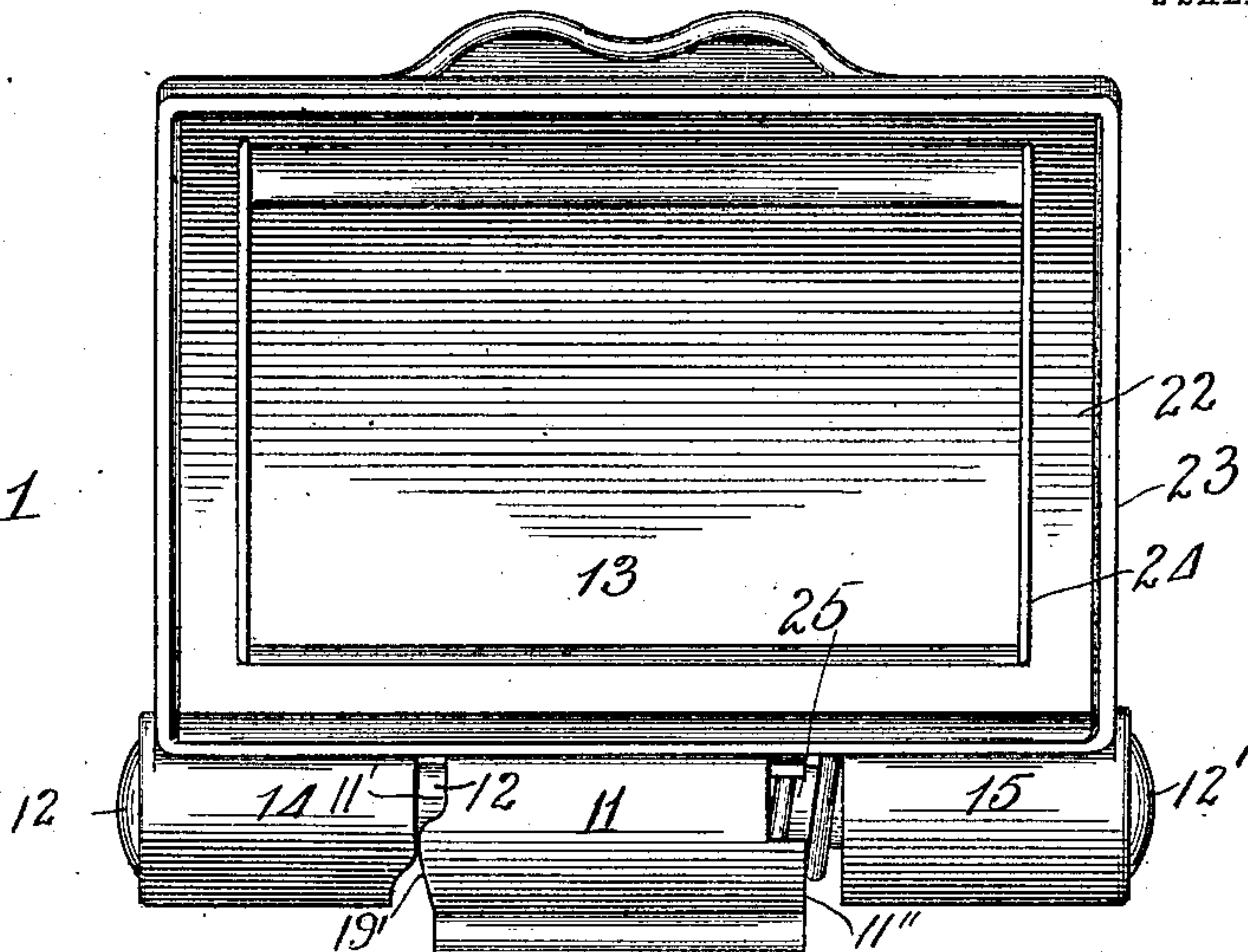
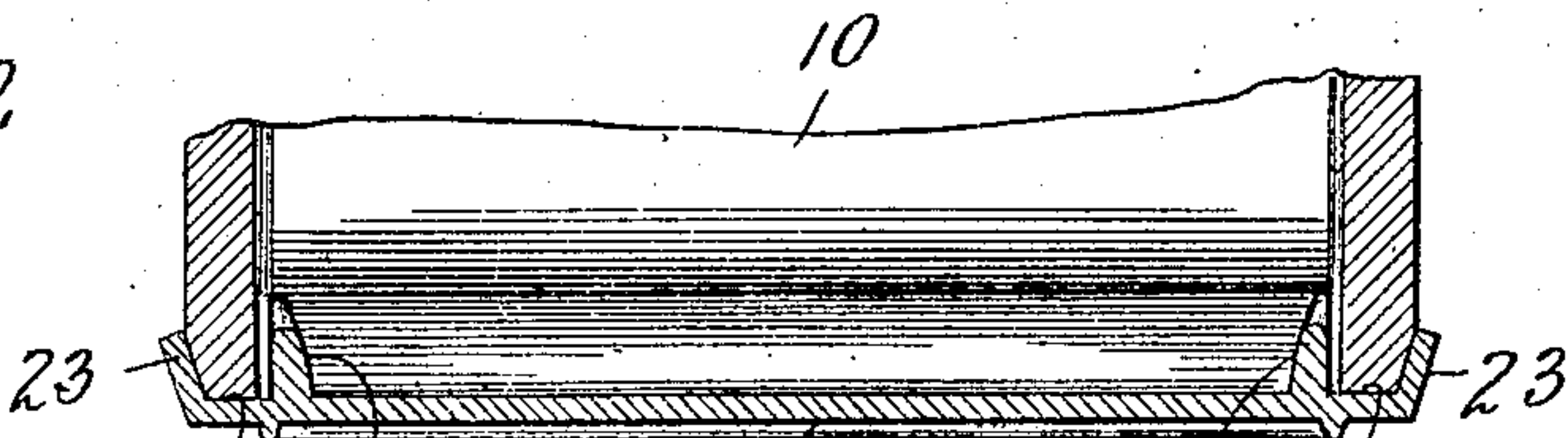


Fig. 2



Witnesses
Harry R. L. White
M. A. Kiddie.

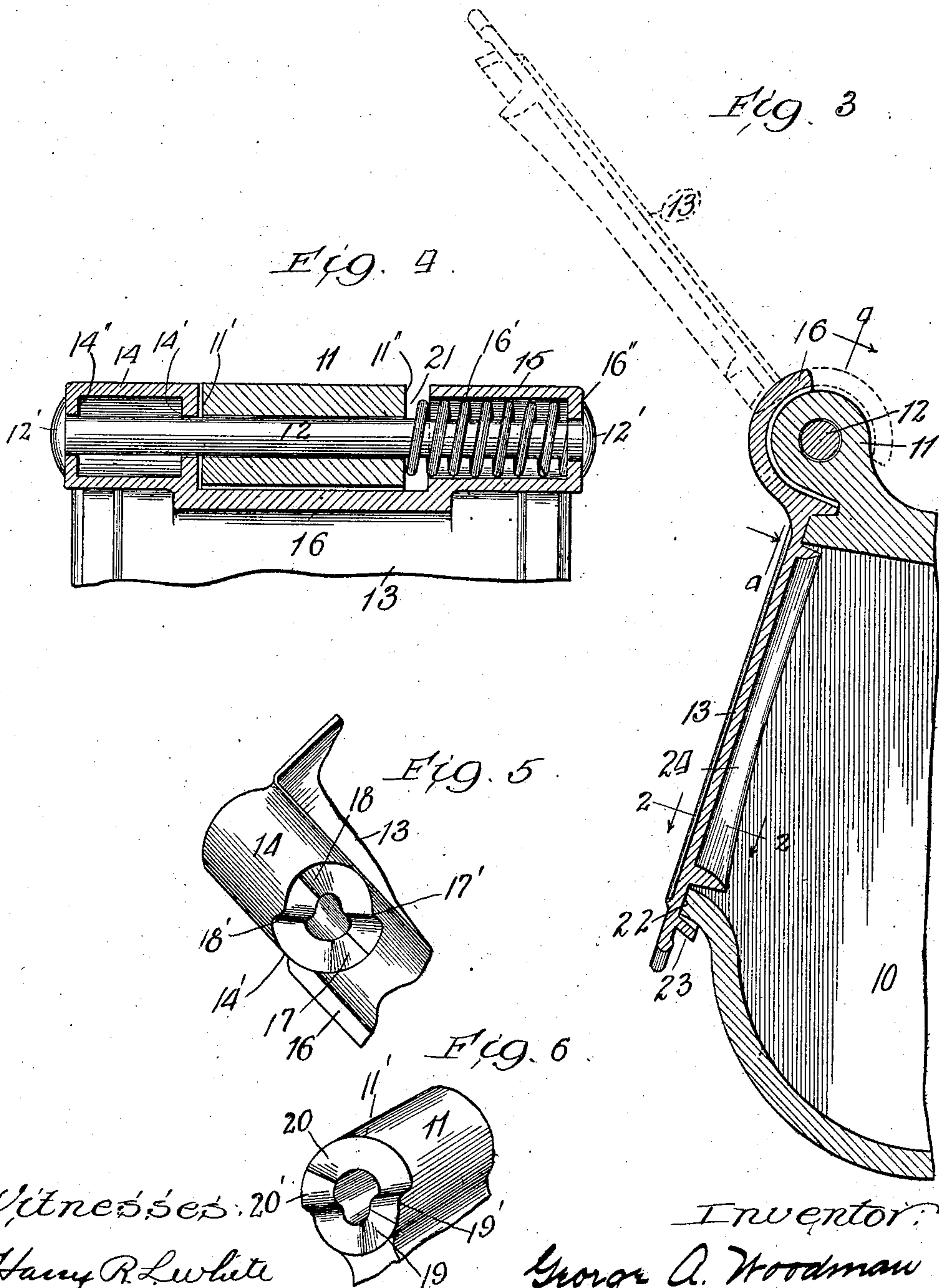
Inventor:
George A. Woodman
By *Wm. T. Bell*

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Inventor:
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UNITED STATES PATENT OFFICE.

GEORGE A. WOODMAN, OF CHICAGO, ILLINOIS.

JOURNAL-BOX.

No. 847,301.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed December 3, 1906. Serial No. 345,992.

To all whom it may concern:

Be it known that I, GEORGE A. WOODMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Journal-Boxes, of which the following is a specification.

This invention relates to journal-boxes of the general type covered by Letters Patent No. 799,365 and No. 828,261 granted to me on September 12, 1905, and August 7, 1906, respectively, and also of the type covered by my application, Serial No. 313,981, filed April 27, 1906.

The object of the invention is to simplify the construction and arrangement of parts and provide for holding the lid of the box securely in its open and closed positions and to close the lid automatically and tightly when it is released from open position.

In the accompanying drawings, illustrating one embodiment of the invention, Figure 1 is a front view of the box, showing the lid in open position. Fig. 2 is a sectional view on the line 2 2 of Fig. 3. Fig. 3 is a vertical sectional view showing the lid closed in full lines and open in broken lines. Fig. 4 is a sectional view on the line 4 4 of Fig. 3. Fig. 5 is a perspective view showing the cams on the lid. Fig. 6 is a similar view showing the cams on the box-lug.

10 designates a journal-box, which is provided with a lug 11, bored to receive a pintle 12, which hinges the lid 13 to the box. The lid has sleeves 14 15 to receive the pintle, and between them is a hood 16, which partly covers the box-lug. A spring 16' is arranged within the sleeve 15, and one end of this spring bears against the head 16'' at the outer end of said sleeve, while the other end of the spring bears against the end 11'' of the lug. The sleeve 14 has a head 14' at its inner end and a head 14'' at its outer end, these heads as well as the head 16'' being bored to receive the pintle, the ends of which are riveted or otherwise provided with heads 12' to securely and permanently fasten the pintle to the box-lid.

The head 14' of the sleeve 14 on the lid is provided with two cams 17 18, which are arranged on opposite sides of the pintle-opening in the head. The high point 17' of one cam is located at the front of the sleeve within the hood 16 and the high point 18' of the other cam is located at the back or under side

of the sleeve, Fig. 5. The box-lug is provided on its end 11' with two cams 19 and 20, which are arranged on opposite sides of the pintle-opening in the lug, Fig. 6. The high point 19' of the cam 19 is located at the back of said lug and the high point 20' of the cam 20 is located at the front of the lug. The cams on the sleeve and lug are made complementary to each other to interlock when the lid is closed. When the lid is opened, Fig. 1, the high point of the cams on the sleeve will rest on the high points of the cams on the lug. The spring is under sufficient tension between the box-lug and the end 16'' of the sleeve 16 to hold the lid in its closed position, and when the lid is opened the tension of the spring will be increased by compression, due to the fact that the cams on the sleeve and the lug engage at their high points to hold the lid open. To provide for this sidewise movement of the lid relative to the box-lug, the space between the two sleeves of the lid is made somewhat greater than the length of the box-lug, as shown at 21, Fig. 4. The lid is made to fit tightly against its seat formed by the edges of the box surrounding the opening therein, so that dirt may not enter the box and oil may not escape therefrom.

The lid is provided on its under side with a channel 22 to receive the edges of the box, and this channel is formed by parallel ribs 23 and 24, Fig. 1. The channel is formed to fit the edges of the box in the manner shown in Figs. 2 and 3, substantially as set forth and described in my application, Serial No. 313,981, aforesaid, and need not be further described here, as this forms no part of the present invention.

In assembling the parts the spring is first inserted in the sleeve 16 and compressed by a clamp applied to the outer side of the head 16' and the opposite end of the spring. Then the lid is arranged in position on the box and the pintle, headed at one end, is inserted and then headed at the other end. The clamp can be removed after the lid has been placed in position on the box and before the pintle is inserted, and for this purpose I provide a recess 25 in the box-lug, Fig. 1.

My invention is characterized by great simplicity of construction and operation, and it comprises comparatively few parts, which is a matter of especial importance in this art, for the fewer the parts the less likelihood there is of the box getting out of order.

What I claim and desire to secure by Letters Patent is—

1. The combination of a car-axle box having a lug thereon, a lid hinged to said box and
5 movable sidewise, said lid having a sleeve on each side of said lug, a spring arranged within one of said sleeves and bearing against the adjacent end of the lug, there being a pair of
10 cams on the other end of said lug located diametrically opposite each other, and a pair of complementary cams similarly located on the other sleeve to ride on the cams on the
lug when the lid is opened and closed.

2. The combination of a car-axle box having
15 a lug thereon, a lid hinged to said box and movable sidewise, said lid having a sleeve on

each side of said lug, one of said sleeves having a head at its outer end and being open at its inner end, and an expansion-spring loosely confined within said sleeve between
20 said head and the adjacent end of the lug, there being a pair of cams on the other end of the lug located diametrically opposite each other, and a pair of similarly-located complementary
25 cams on the other sleeve to ride on the cams on the lug when the lid is opened and closed.

GEORGE A. WOODMAN.

Witnesses:

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