

W. S. FLICK & G. A. LAMBERT.

HINGE.

APPLICATION FILED MAR. 8, 1917. RENEWED JAN. 22, 1918.

1,268,104.

Patented June 4, 1918.

2 SHEETS—SHEET 1.

FIG. 1.

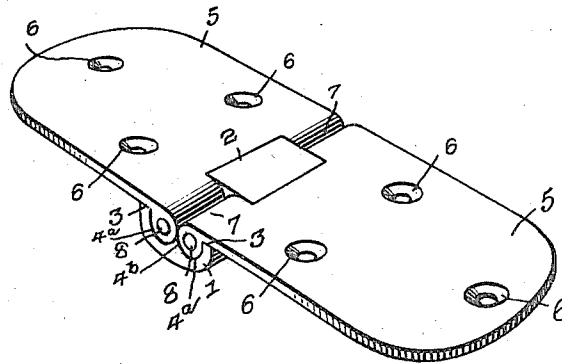


FIG. 2.

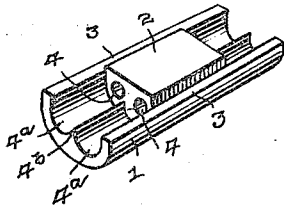


FIG. 3.

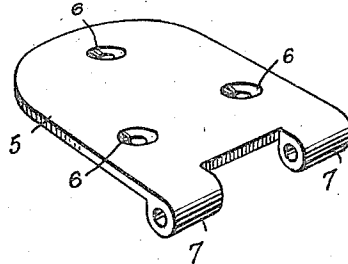
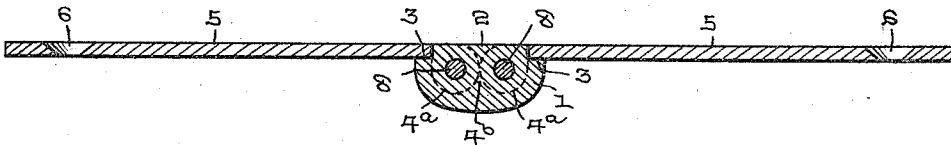


FIG. 4.



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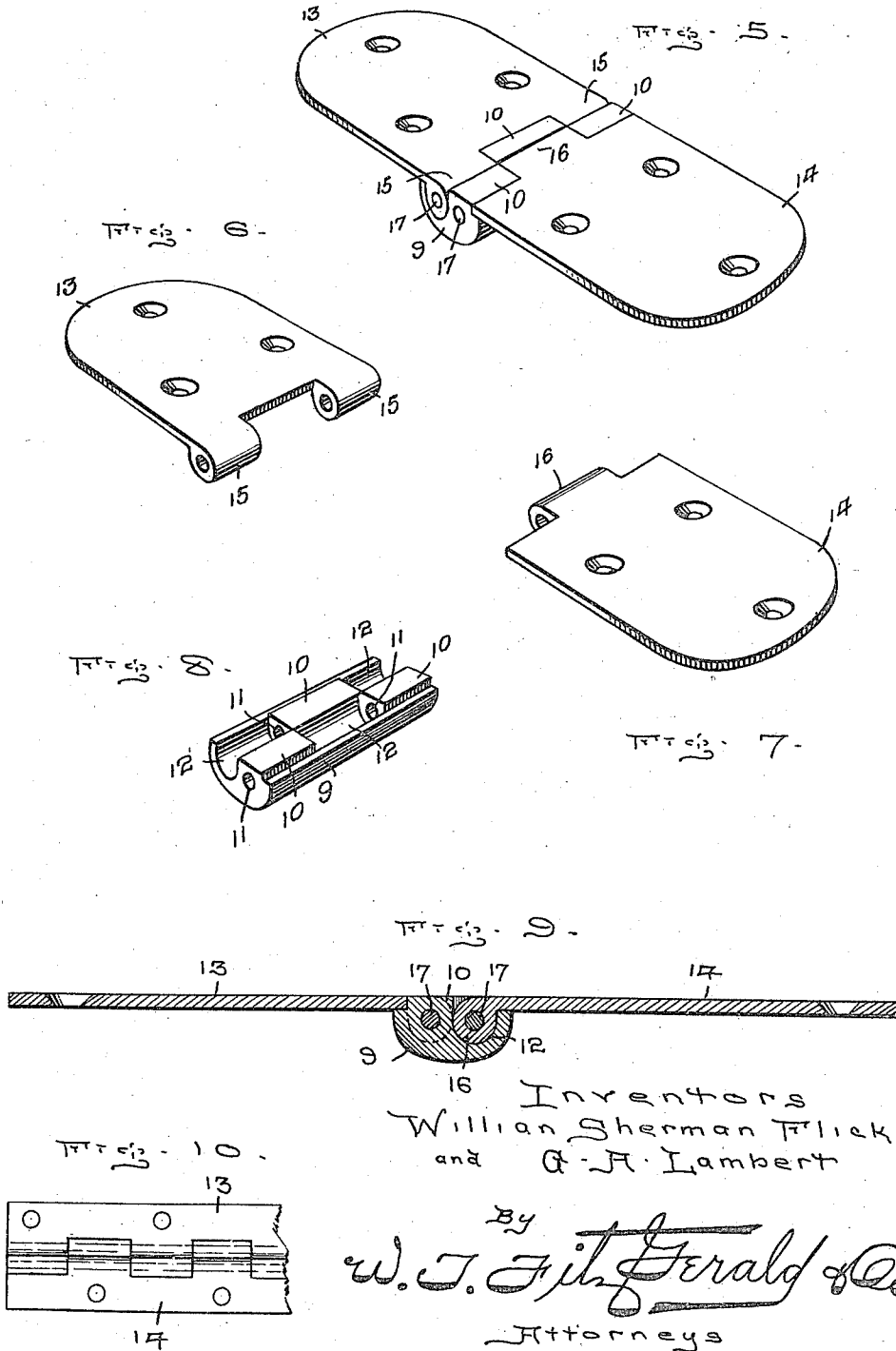
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UNITED STATES PATENT OFFICE.

WILLIAM S. FLICK AND GEORGE A. LAMBERT, OF ANDERSON, INDIANA.

HINGE.

1,268,104.

Specification of Letters Patent.

Patented June 4, 1918.

Application filed March 8, 1917, Serial No. 153,349. Renewed January 22, 1918. Serial No. 213,271.

To all whom it may concern:

Be it known that we, WILLIAM S. FLICK and GEORGE A. LAMBERT, citizens of the United States, residing at Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Hinges; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hinges and the principal object of the invention is to provide a hinge which is so constructed that when the leaf sections are opened, the upper surface of the hinge will be perfectly smooth, the hinge being particularly desirable for use in connection with sewing machine lids for the reason that when the lid is opened to a level the objectionable knuckle will be done away with, the hinge being also adapted for many other similar uses.

Another object of the invention is to provide a hinge embodying a channel member in which is pivotally mounted a pair of leaf sections, whereby the leaf sections may be folded together and subsequently opened into the same plane, the side edges of the channel member supporting and maintaining the leaf sections in the same plane when opened.

With these and other objects in view, as will appear as the description proceeds, the invention comprises the various novel features of construction, combination and arrangement of parts as will be more clearly described hereinafter and set forth with particularity in the appended claims.

Referring to the drawings,

Figure 1 is a perspective view of my improved construction of hinge, showing the leaf sections opened into the same horizontal plane.

Fig. 2 is a vertical longitudinal sectional view through the same.

Fig. 3 is a detail perspective view of the channel member.

Fig. 4 is a perspective view of one of the leaf sections.

Fig. 5 is a perspective view showing another way in which the hinge may be constructed.

Fig. 6 is a perspective view of one of the leaf sections.

Fig. 7 is a perspective view of the other leaf section.

Fig. 8 is a perspective view of the channel member.

Fig. 9 is a vertical longitudinal sectional view through the hinge, and

Fig. 10 is a fragmentary plan view showing how the leaf sections may be extended any desired length.

Similar characters of reference are used to denote like parts throughout the drawings and the following description.

Referring more particularly to the drawings, the reference numeral 1 indicates an elongated channel member which is of substantially U-shape in cross section, and arranged within the channel member and intermediate its ends is a hinge block 2, which projects slightly above the opposite side edges 3 of the channel member and is provided with a pair of apertures 4 that extend entirely through it, a channel member being further provided in its bottom with a pair of semi-circular recesses 4^a that are arranged concentrically of the apertures 4. By the formation of these recesses, a rib 4^b is formed that is designed to fit snugly between the knuckles of the hinge sections and serve to strengthen and reinforce the hinge.

The hinge further consists of a pair of leaf sections 5 which are identical in construction, each section being provided with countersunk openings 6 whereby the sections may be attached to a suitable support by any desired fastening means, such as screws or the like. Each of the leaf sections 5 is provided at its inner end with a pair of spaced apertured knuckles 7, which are arranged below and tangentially to the upper surface of the leaf section, as clearly shown.

The apertured knuckles 7 of each leaf section are arranged on opposite sides of the hinge block 2 in the recesses 4^a and pivotally connected thereto through the medium of hinge pins 8. As above stated, the hinge block 2 projects slightly above the edges of the channel member, or a distance equal to the thickness of one of the leaf sections so that when the leaf sections are opened into the same plane, the top of the hinge block will lie flush with the upper surface of the leaf sections.

From the foregoing it will be obvious that when the leaf sections are opened into the same horizontal plane, as shown in Figs. 110

1 and 2, the sections will rest upon the opposite longitudinal side edges of the channel member 1, these side edges supporting and maintaining the leaf sections positively in the same plane.

In Figs. 5 to 9 inclusive will be seen another form of the hinge wherein the channel member 9 is formed throughout its length with alternately arranged hinge blocks 10 that are provided with apertures 11 extending therethrough. The channel member is formed between each of these hinge blocks and its opposite side edges with a semi-circular recess 12 designed to receive one of the pin barrels of the leaf sections.

The hinge also embodies leaf sections 13 and 14, the leaf section 13 being formed with a pair of spaced knuckles 15, while the section 14 is formed with a knuckle 16 designed to be arranged between the knuckles 15, each of the pin barrels being pivotally mounted in the recesses 12 by hinge pins 17.

In this form of hinge, like the previous one, the hinge blocks project slightly above the channel member, so that when the leaf sections are opened into the same plane, the side edges of the channel member will support and maintain the sections in the same plane. It will also be noted that when the leaf sections are opened into the same plane that the top surface thereof will be perfectly smooth, the hinge barrels being positioned below the leaf sections and out of the way.

In Fig. 10 will be seen a view illustrating one way in which the leaf sections may be extended and is particularly adapted for use in connection with pianos and trucks, wherein a long hinge is desirable.

It is to be further understood that the hinge may be used for any other purpose where one movable part is designed to be swung into and supported in the same plane with another so as to present a smooth top surface with no projecting knuckles.

What I claim is:

1. A hinge comprising a channel member, a hinge block arranged in the channel member, a pair of leaf sections formed with a pair of spaced knuckles positioned on opposite sides of the hinge block, and a hinge pin passing through each pair of knuckles and said hinge block, said knuckles being so positioned within the channel member that

the leaf section may be folded together until their co-engaging surfaces occupy the same plane.

2. A hinge comprising a channel member, a hinge block arranged in said channel member and projecting up above the sides of said channel member, a pair of leaf sections each formed at its inner end with knuckles disposed below the upper surface of said sections and juxtapositioned within the channel member on opposite sides of the hinge block, said hinge block having its top arranged flush with the top of said leaf sections, and a hinge pin extending through the knuckles of each leaf section and said hinge block.

3. A hinge comprising a channel member, a hinge block arranged in the channel member intermediate its ends, said channel member formed in its bottom on opposite sides of the hinge block with a pair of semi-circular recesses a pair of leaf sections each formed with a pair of spaced knuckles and arranged in said semi-circular recesses, and a hinge pin extending through each pair of knuckles and said block.

4. A hinge comprising a channel member of substantially U-shape, a hinge block arranged in and integral with the channel member and projecting above the sides of said channel member, a pair of leaf sections each of which is formed with a pair of spaced knuckles at its inner end and disposed on opposite sides of the hinge block, said knuckles being arranged below and tangentially to the upper surface of each leaf section, and a hinge pin extending through each pair of knuckles and said hinge block to pivotally support the knuckles within the channel member in juxtaposition to each other whereby when the leaf sections are opened into the same plane the opposite longitudinal side edges of the channel member will support and maintain the hinge sections in the same plane.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM S. FLICK.
GEORGE A. LAMBERT.

Witnesses:

WILLIAM H. SURBAUGH,
IDA FELDMANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."