

(No Model.)

2 Sheets—Sheet 1.

A. CLAYPOOL.

COMBINED FLUSH HINGE AND SUPPORT FOR DESKS.

No. 497,533.

Patented May 16, 1893.

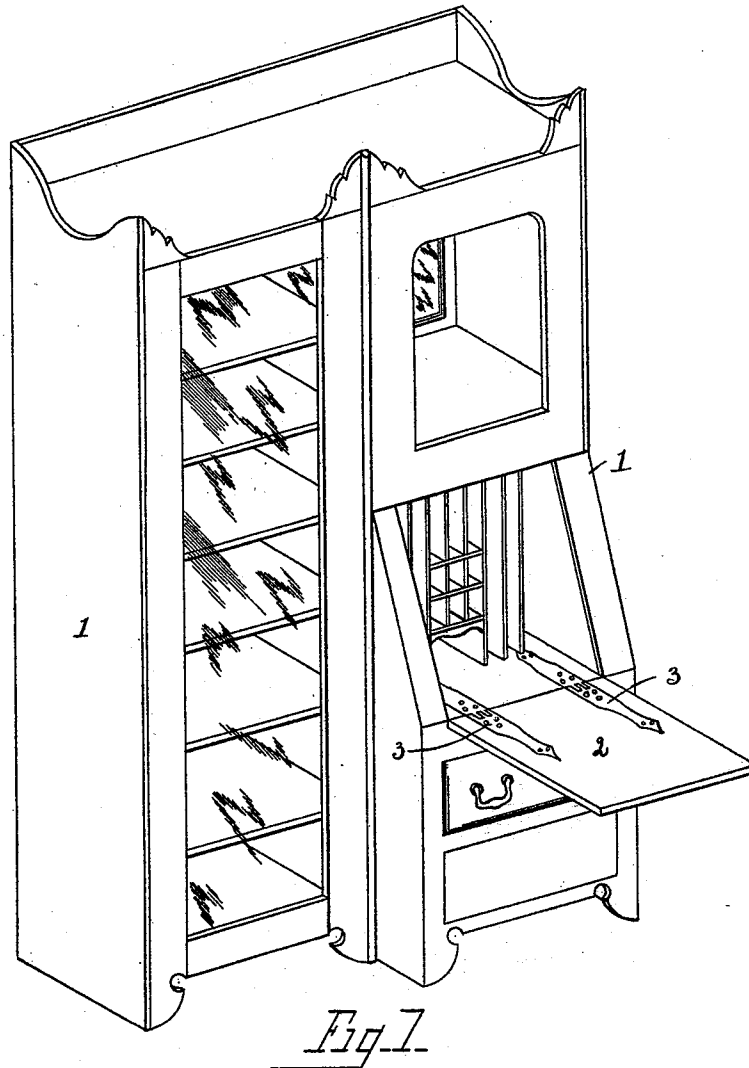


Fig. 1

WITNESSES

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Grace E. Lehaney

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Atty

(No Model.)

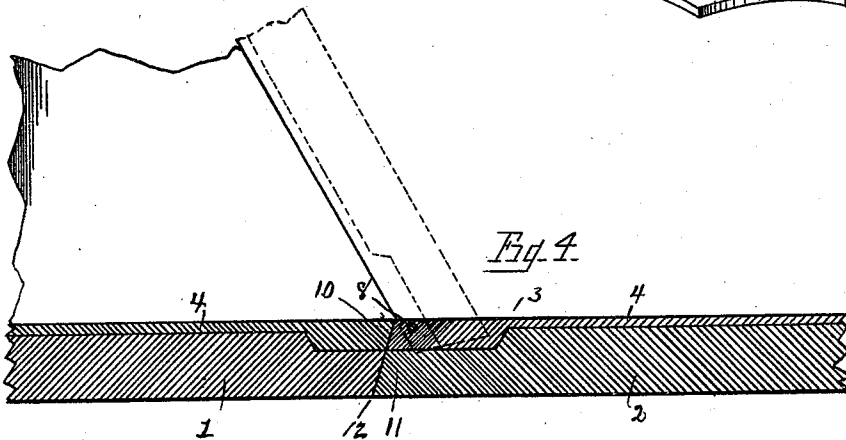
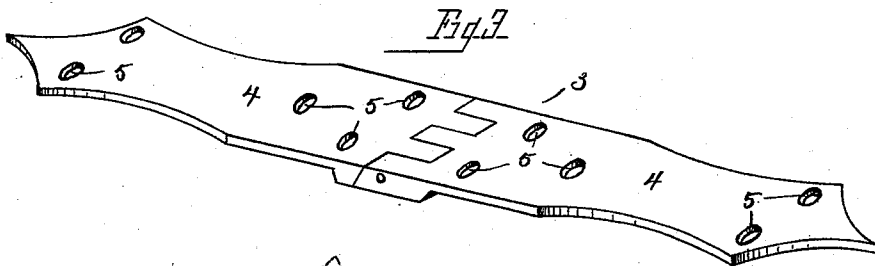
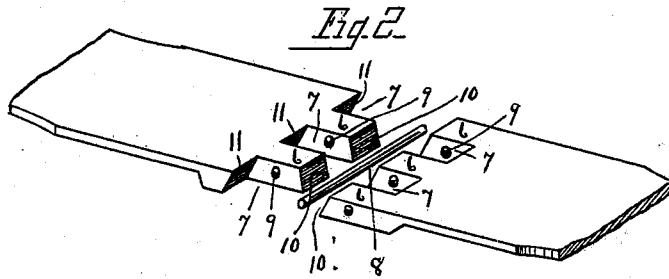
2 Sheets—Sheet 2.

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COMBINED FLUSH HINGE AND SUPPORT FOR DESKS.

No. 497,533.

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WITNESSES

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UNITED STATES PATENT OFFICE.

ALBERT CLAYPOOL, OF TOLEDO, OHIO.

COMBINED FLUSH HINGE AND SUPPORT FOR DESKS.

SPECIFICATION forming part of Letters Patent No. 497,533, dated May 16, 1893.

Application filed March 14, 1892. Serial No. 424,777. (No model.)

To all whom it may concern:

Be it known that I, ALBERT CLAYPOOL, of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful
5 Improvements in a Combined Flush Hinge and Support for Desks, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to a hinge, and has for
15 its object to construct a hinge, in which the sections at the point of joinder shall present a smooth surface upon the upper or face side and at the same time form a support for the foldable leaf secured to one section of the
20 hinge.

A further object is to construct hinge sections in which the tongues which interlock shall have a pivoted rotation in which the transverse pivot pin shall pass through the
25 tongues above the center of the same in a horizontal plane, whereby the ends of the tongues may be formed with opposing inclines to act as supports when the sections are in a horizontal alignment, and to allow one section
30 to swing to an acute angle to the other.

The invention consists in the parts and combination of parts described and pointed out in the claim.

In the drawings: Figure 1 is a perspective
35 view of a combined bookcase and desk with the leaf shown as opened, the hinges being shown in position flush with the surface of the desk leaf and supporting the same. Fig. 2 is a perspective view of the hinge with the
40 sections separated. Fig. 3 is a like view with the sections assembled. Fig. 4 is a sectional view of a portion of the desk and leaf with the hinges applied thereto, the leaf being shown in full lines as opened and supported
45 by the hinges and in dotted lines as closed.

In the ordinary construction of hinges the knuckles through which the pivot pin passes comprise an enlargement at the end of each tongue so that when the sections are secured

to an article of furniture (as the desk shown) 50 a portion of knuckles projects above the surface of the desk and leaf the projections not only forming obstructions, but being unsightly, and in the matter of support the pivoted point of the sections being fulcrumed 55 greatly weakens the hinge and requires supporting devices for the leaf as chains or rods. My invention overcomes these objections by reason of forming the tongues with oppositely inclined end surfaces which co-incide with like 60 inclined surfaces in the grooves and pivoting the sections by passing the pin through perforations formed in the tongues above the horizontal centers of the same, whereby pressure upon the straps when the two sections are 65 in a horizontal plane exerts a direct, or nearly direct pull upon the pivot allowing the full strength of the same thereby forming a strong support and dispensing with the necessity of other supports. I therefore, combine in the 70 one article a hinge, and support. I have shown a desk in which is a leaf secured by my hinge as one illustration of its use, as it best demonstrates the value of the smooth upper face of the hinge as well as its strength as a sup- 75 port, and also its adaptability to be folded at an acute angle, it being understood that the hinge is more particularly adapted to the finer grades of furniture where one portion is pivotally secured to another. 80

1 designates the desk, 2 the leaf and desk.

3 designates the hinge sections comprising the straps 4 provided with holes 5 through which are passed the screws to attach the same to the desk and leaf, the straps 4 being 85 sunk into the wood to form a smooth surface with the top of desk and leaf. On the ends of straps 4 are formed tongues 6 and grooves 7 in which the opposing sections slide and are held pivotally assembled by means of 90 a pin 8 which is passed through perforations 9 formed in the tongues slightly above the horizontal center of the tongue as shown, whereby the oppositely inclined ends 10 of the tongues may swing clear of the inclined 95 portions 11 of the grooves and allow one section to be moved to an acute angle to the other.

Referring to Fig. 3 it will be seen that the ends 10 of the tongues, and the inclined portions 11 of the grooves co-incide and abut when the straps are in horizontal alignment 5 thereby forming a tight joint in which each inclined portion acts as a support and the pivot pin so located that any weight upon the straps produces a strain upon the pin in the direction of the length of the hinge. The leaf 10 may be supported at any desired angle to the desk by varying the inclination of the ends of the tongues and grooves.

From the foregoing it will be seen that I have provided a hinge having a smooth upper surface when extended and that from its construction it forms a rigid support for the leaf. 15

It will be observed that the abutting ends of the desk 1 and leaf 2 as at 12 strengthen

the fulcrum of the hinge, thereby adding 20 great strength to the support.

What I claim is—

A hinge composed of two sections, each section having a plurality of tongues designed to interlock with those of the other section, and 25 mortises intermediate the tongues, the rear walls of the mortises and the outer ends of the tongues being inclined in opposite directions, and a pivot-pin connecting the two sections. 30

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

ALBERT CLAYPOOL.

Witnesses:

WILLIAM WEBSTER,
CARROLL J. WEBSTER.