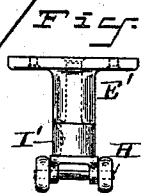
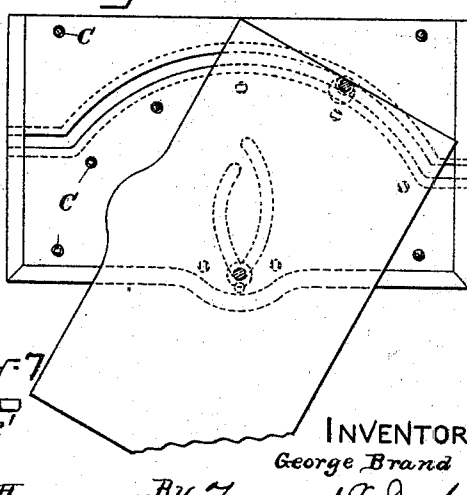
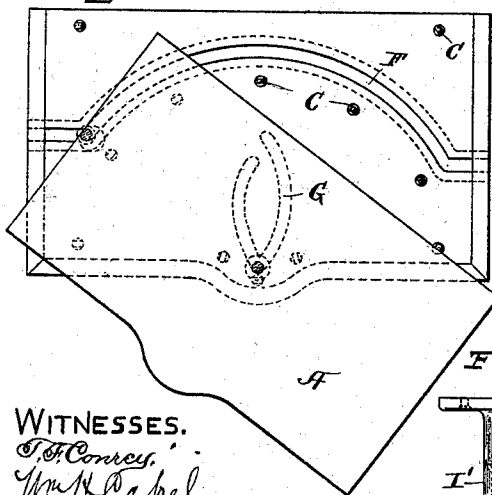
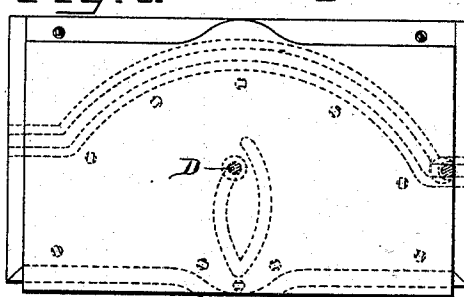
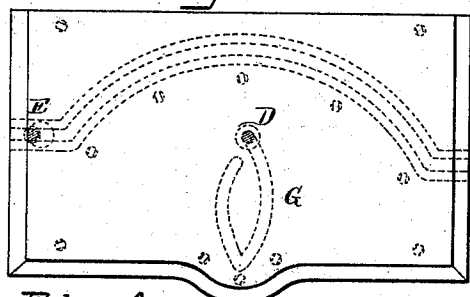
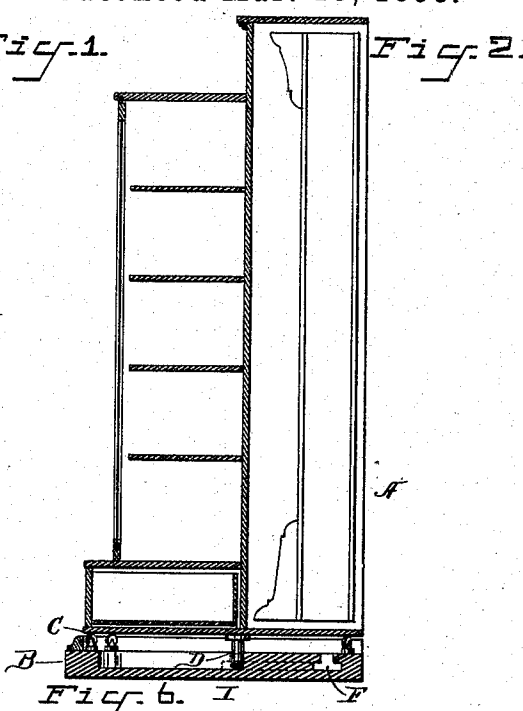
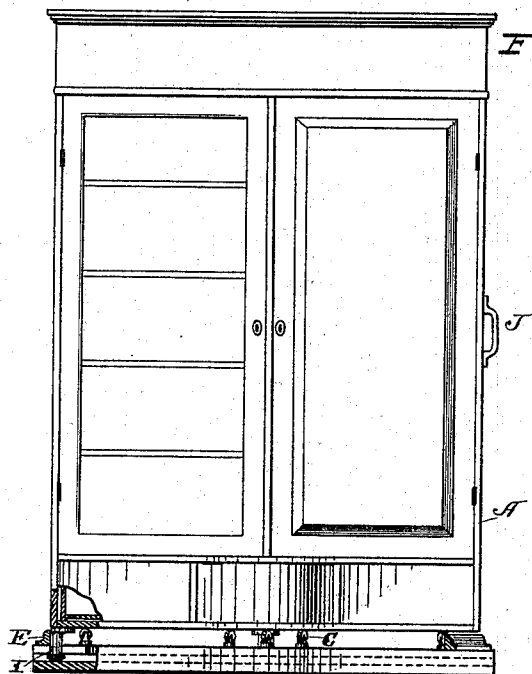


(No Model.)

G. BRAND.
BASE FOR REVERSIBLE FOLDING BEDS.

No. 535,886.

Patented Mar. 19, 1895.



WITNESSES.
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UNITED STATES PATENT OFFICE.

GEORGE BRAND, OF BROOKLYN, NEW YORK.

BASE FOR REVERSIBLE FOLDING BEDS.

SPECIFICATION forming part of Letters Patent No. 535,886, dated March 19, 1895.

Application filed September 12, 1894. Serial No. 522,796. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BRAND, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Base for Reversible Folding Beds, of which the following is a specification.

My invention relates to an improvement in bases for reversible folding-beds in which the bed is combined with another article of furniture such as a book-case, or combined book-case and desk or a cabinet or wardrobe. This combination produces a heavy piece of furniture and, inasmuch as it is necessary to reverse it morning and evening to make the book-case accessible during the day and the bed at night, it is necessary to provide suitable means for easily making such reversal. Some of these combination articles of furniture are simply provided with casters and are intended to be rolled around on the floor. These are very difficult things to handle and when placed on a carpet it becomes almost impossible to roll them about and they soon ruin the carpet. Others are provided with stationary bases between which and the body portions are extensible tracks along which the body portion must be drawn before or in the act of reversing it.

The object of my invention is to provide a base and so connect thereto the body portion of the combined bed and book-case or similar article that said body portion may be easily and readily reversed without the use of extensible tracks or any intermediate part that must be manipulated before, during or after the reversal. To reverse said bed and case when mounted on my improved base it is only necessary to take hold of it at one end or at the front and turn it on the base, the base being provided with anti-friction devices and with guides which make the reversal a very easy matter.

To this end my invention consists in the combination in a reversible article of furniture, of a base provided with anti-friction devices between it and the body portion of said article, and means for directing said body portion in its reversal and at the same time retaining it upon the base.

It further consists in the construction and

combination of parts as hereinafter described and set forth in the claims.

In the drawings which form a part of the specification:—Figure 1, is a front view, with a portion broken away, and Fig. 2, is a vertical transverse section showing my improved base as applied to a combined cabinet and folding-bed. Figs. 3, 4, 5 and 6, are diagrammatic plans showing the combined case and bed in different positions upon the base. Fig. 7, is a detail of a form of guiding stud.

A, indicates the body portion of an article of furniture to which I have shown my improved base applied. B, represents the said base; C, anti-friction devices between the base and body portion; D, the central guiding stud, and E the lateral stud.

For the anti-friction devices I prefer to use casters which I mount in the base so that their rollers shall bear against the bottom of the body portion or case. I may, however, use other sorts of anti-friction devices and may mount the same upon the case so that they shall roll upon the base.

In order to direct the case in its reversal and at the same time to retain it upon the base, I form grooves in the said base into which the studs D and E, project. One of these grooves as F, receives the stud E, which for convenience in description I have termed the lateral stud while the other groove G, receives the stud D, which I have termed the central stud. The groove F, extends from one end of the base to the other and has its middle portion curved toward the rear side of the base. This groove I have also shown undercut as seen in Fig. 2, for the purpose of receiving an enlargement or head formed upon the stud E, as shown in Figs. 1 and 7. This head may be omitted as the case in all of its positions has its center of gravity over the base and is in no danger of falling over, but to insure against its being pulled over by careless persons when reversing it, I prefer to use the undercut groove and headed stud. In Fig. 1, the head is formed on stud E, by simply securing a washer upon its lower end. In Fig. 7, I have shown the stud E', as provided with a swiveled cross-head carrying anti-friction rollers H, which shall fit in the undercut of groove F. About the studs D

and E, I place a collar at I, which shall act as an anti-friction device between the studs and the edges of their respective grooves. In Fig. 7, a similar collar is shown at I'.

5 The groove G, as shown, consists of two intersecting curved grooves which are located near the middle of the base. In the normal position, that is with the bed-side of the case turned to the wall, the studs D and E, occupy
10 the positions indicated in Fig. 3. As the case is moved in the act of reversing it, stud D, traverses the right hand portion of groove G, until it reaches the intersection of the two portions of said groove when it rests there
15 and acts as the pivotal center while stud E, traverses the curved portion of groove F, as seen in Fig. 5. Then when stud E, reaches the end of the curve in groove F, it acts as a center while the stud D, traverses the left
20 hand portion of groove G, stud E, meantime traveling the short straight portion of groove F, as the case assumes the position shown in Fig. 6. It will be noticed that said straight portion of groove F, is nearer to the front side
25 of the base than the corresponding straight portion at the other end of the groove, and also that the left hand portion of groove G, is shorter than the right hand portion. This it will be observed provides for drawing the case
30 slightly forward so that the projection on the front thereof shall not strike the wall and for definitely locating the case when it has reached the limit of its reversal.

35 With a base thus constructed it may, as will be seen from the drawings be placed close against the wall and the case reversed without striking the wall or without the base having to be moved therefrom.

40 I have shown the base provided with a molding about its edge to hide the anti-friction devices. I have also shown the base solid with grooves formed therein, but I may obviously construct it of thinner material mounted upon cleats or suitable cross pieces cut away
45 at the points where the heads of the studs shall pass or I may form the base of a single plain piece and mount upon it suitable rails or bars which shall form the grooves F and G.

Obviously the construction of the base may
50 be greatly changed without departing from the gist of the invention which resides in the manner of forming and locating the grooves so that the case may be reversed upon the base without employing any intermediate
55 mechanism that would require manipulation before, during or after the reversal of the case.

To assist in reversing the case I may place handles of any convenient form upon it as indicated at J, in Fig. 1, but ordinarily there
60 will be no necessity of such handles as the case may be moved so easily that any molding or other projection thereon will furnish sufficient holding surface to enable any one to reverse it.

65 I have shown the base provided with a projection in front opposite the middle thereof

for receiving a caster outside of the intersection of the two portions of groove G. This I do not deem essential. The base might be straight in front as well as in the rear. I
70 have also shown the case as provided with drawers in a slight projection at the bottom and while this affords a means of broadening the base with respect to the case and throwing the center of gravity thereof well back of
75 the front edge of the base yet this feature may be omitted.

In certain combinations of articles of furniture with a folding bed I may, as is already done with furniture of this sort, place a weight
80 in the case at a point that shall always be over the base and thereby provide against any danger of the case toppling over in the act of reversal.

What I claim as my invention is—

85 1. The combination with the reversible body portion of an article of furniture to be reversed about a shifting center, of a non-extensible base therefor provided with a guiding groove extending longitudinally thereof
90 and another guiding groove located at the middle of the base and extending transversely thereof, casters mounted between the base and body portion, a stud projecting from the center of the body portion and traveling in
95 the transverse groove, and a stud projecting from said body portion near one side thereof and traveling in the longitudinal groove, as and for the purpose specified.

2. The combination of the base provided
100 with a groove extending from one end of the base to the other the middle portion of which curves toward one side of the base and with another groove forming two intersecting curves and located at the middle of the base,
105 and a reversible body provided with downwardly projecting studs fitting into said grooves for directing and retaining said body upon the base.

3. The combination with the reversible
110 body portion of an article of furniture to be reversed about a shifting center, of a non-extensible base therefor commensurate therewith and provided with a curved guiding groove extending longitudinally thereof and
115 with a transverse curved guiding groove, casters secured in the base and extending their rollers upwardly against the body portion, and studs projecting from the body portion into said grooves and traveling therein for
120 the purpose of guiding said body portion in its reversals.

4. The combination with a base provided with an undercut groove and a body mounted to turn thereon, of a stud secured to said body
125 and provided with a swiveled cross-head fitting in said groove and having anti-friction rollers thereon, engaging with the undercut surface of said groove and an anti-friction collar on said stud for engagement with the
130 edges of said groove.

5. In an article of furniture, the combina-

tion of the base provided with a curved guide
extending longitudinally of the base and with
another guide forming two intersecting curves
and extending transversely of the base, and
5 a reversible body mounted on said base and
adapted to be turned thereon under the con-
trol of said guides, substantially as set forth.

Signed at New York, in the county of New
York and State of New York, this 11th day of
September, A. D. 1894.

GEORGE BRAND.

Witnesses:

WM. H. CAPEL,
THOS. F. CONREY.