

No. 680,127.

Patented Aug. 6, 1901.

J. M. CORNELL.
DRAWER GUIDE FOR STEEL FURNITURE.

(Application filed May 18, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

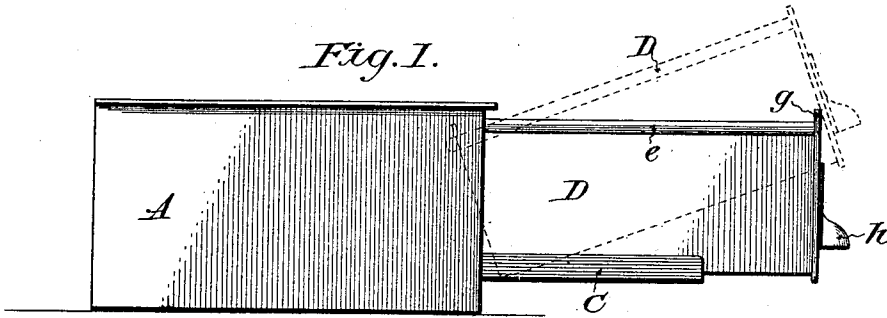


Fig. 2.

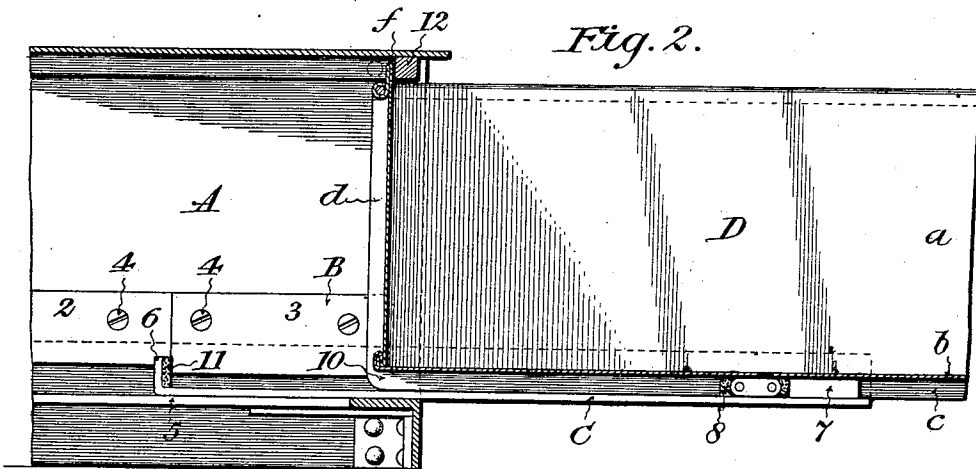
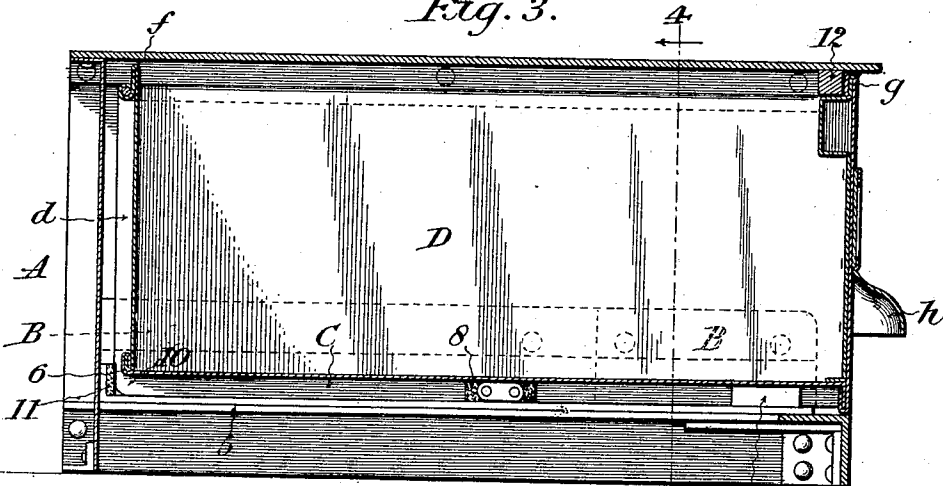


Fig. 3.



Witnesses

E. Walker
E. Thos. Loftus

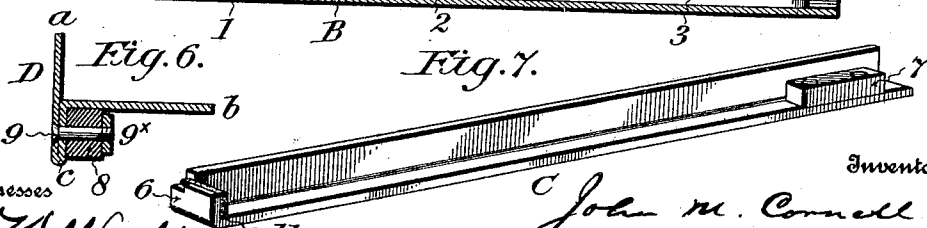
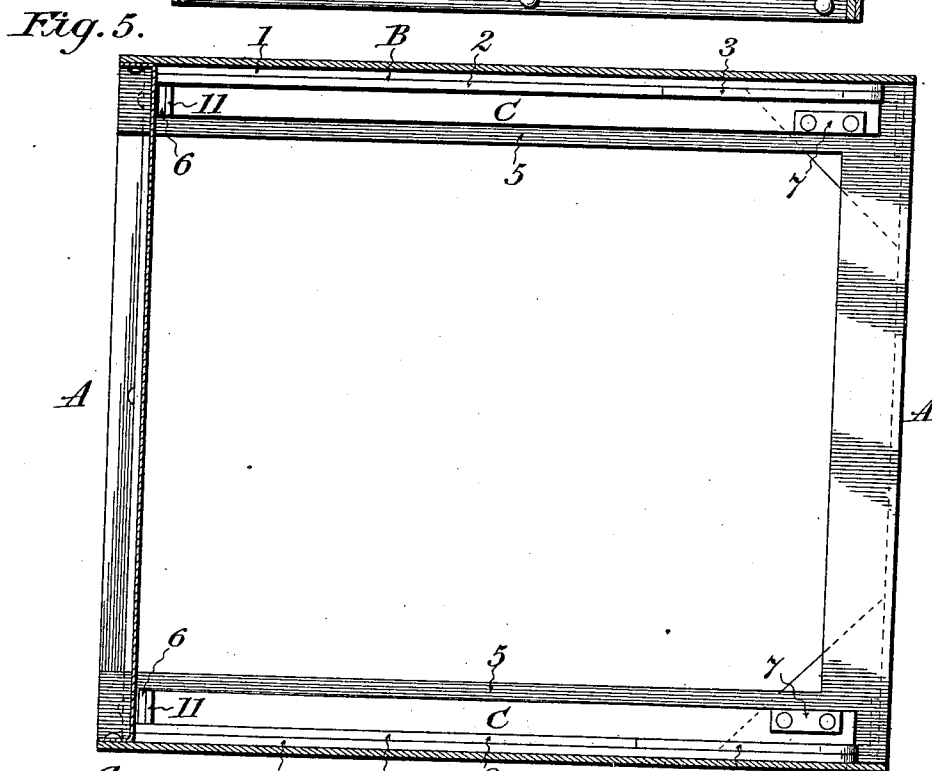
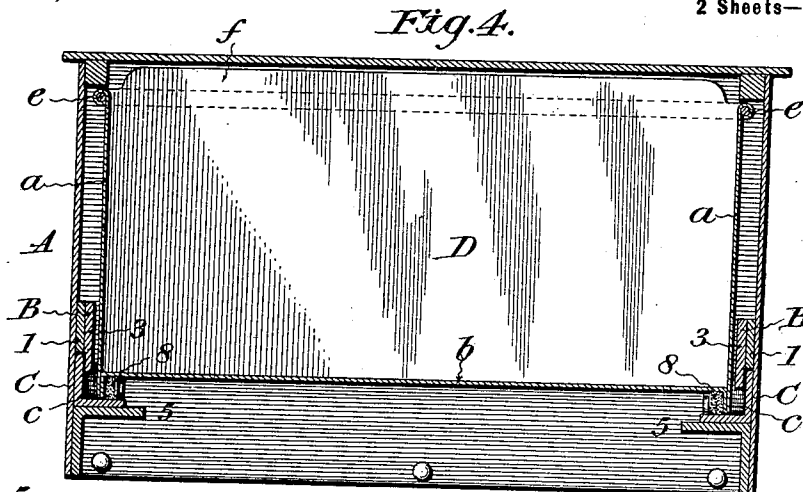
Inventor
John M. Cornell
per *R. L. Davis*,
Attorney.

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(No Model.)

2 Sheets—Sheet 2.



Witnesses
C. H. Walker, II
E. Thos. Loftus

Inventor
John M. Cornell
per *[Signature]*
Attorney

UNITED STATES PATENT OFFICE.

JOHN M. CORNELL, OF NEW YORK, N. Y.

DRAWER-GUIDE FOR STEEL FURNITURE.

SPECIFICATION forming part of Letters Patent No. 680,127, dated August 6, 1901.

Application filed May 18, 1901. Serial No. 60,881. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. CORNELL, a citizen of the United States of America, and a resident of the city of New York, in the State of New York, have invented a new and useful Improvement in Drawer-Guides for Steel Furniture, of which the following is a specification.

This invention relates to what is known as "steel" furniture for office-buildings and to drawer-guides, in which the drawer may be pulled out nearly its entire length without dropping.

The present invention consists in certain novel combinations of parts hereinafter set forth and claimed whereby the principle of such drawer-guides is embodied and made effective for the first time in "steel drawers." The drawer is adapted to be readily removed at will. Tappets of the required strength are readily formed and are located beneath the drawer in space that would not otherwise be utilized. Cushioning to reduce noise is provided for, and guides are formed wholly of flat metal and accommodated beneath the wired edges of the drawer.

Two sheets of drawings accompany this specification as part thereof.

Figure 1 is an edge view of a single-drawer cabinet, showing the drawer fully opened and illustrating by dotted lines the removal of the drawer. Fig. 2 represents a vertical longitudinal section through the opened drawer on a larger scale. Fig. 3 represents a like section through the closed drawer. Fig. 4 represents a cross-section on the line 4 4, Fig. 3. Fig. 5 represents a sectional plan view with the drawer removed. Fig. 6 is a magnified fragmentary section through one of the tappets, and Fig. 7 is a perspective view of one of the slides detached.

Like letters and numbers refer to like parts in all the figures.

The casing A of the drawer, except as hereinafter specified, may be of any shape and construction. Ordinarily it will be part of a piece of office furniture of relatively large dimensions containing a number of drawers and made in convenient sections. Within the casing at each side a fixed guide B is formed, being conveniently composed of pieces 1, 2, and 3 of flat metal, attached to

the sides of the casing by screws 4, common to the "way-bars" 1, as they are herein termed, and the guide-pieces 2 and 3, respectively. Beneath the guide B a longitudinal supporting-bar 5 forms part of the casing A. Within each guide B is an angle-bar slide C, L-shaped in cross-section and provided with an upturned tappet-forming inner end 6 and with an upwardly-projecting tappet 7 at its outer end. The latter is conveniently a piece of bar-steel of any required strength fixedly attached by screws or rivets at or near the edge of that flange of the slide C which is horizontal. The vertical flange of the slide is embraced by said pieces 1, 2, and 3 of the guide, the inner guide-plate 2 clearing said upturned end 6 of the slide and the inner end of the outer guide-plate 3, which is wider than the guide-plate 2, forming a stop in the path of said upturned end.

The lower lateral angles of the drawer D are embraced by the pair of slides C, and each of said angles in the specific steel drawer represented by the drawings is constructed as follows—that is to say, the sheet-steel side *a* of the drawer is extended or projected downward below the bottom *b* in the form of a flange *c*, in which the metal is conveniently doubled, as in Fig. 6, the bottom and sides of the drawer being bent up from one blank. Beneath the drawer-bottom *b* at or near each lateral edge a tappet 8 must be located at mid-length to coact with the tappet 7 on the contiguous slide C. Such tappet is preferably and conveniently formed of rubber, leather, or the like and attached to the inner side of the flange *c* by screws 9 and clamping-plates 9^x, Fig. 6. The flanges *c* are conveniently extended up the back of the drawer D, as at *d*, Fig. 3, with rounded rear corners 10 to coact with the upturned ends or inner tappets' 6 on the slides C when the drawer is pushed in. Cushions 11, of rubber or the like, are cemented to the tappets 6 to contact with said corners 10 and with the stop ends of the guide-plates 3.

The upper lateral edges *e* of the drawer D, in common with the edge of its inner end or back, are wired, as in Fig. 4, and the wired edges project above the guides B, or, in other words, the latter are accommodated without additional space beneath said wired edges.

The customary upwardly-projecting flange *f* at the top of the back of the drawer coacting with a bar 12, Figs. 2 and 3, within the casing A at its outer end may be retained, and the drawer may be otherwise of any known or improved construction. A front flange to assist in stopping the drawer when it is pushed in is represented at *g* and a suitable handle at *h*.

When the drawer D is pulled out by means of the handle *h*, the tappets 8, coming in contact with the tappets 7 on the slides C, cause the slides to move outward with the drawer the remainder of its travel, so that when the drawer is fully open, as in Figs. 1 and 2, the slides, projecting beneath the same, support the drawer from beneath and keep the same from dropping. Should it be desired to remove the drawer D, it is pulled out as above and then tilted on its rounded corners 10, as in dotted lines in Fig. 1, to clear its rear flange *f* from said bar 12 of the casing. It is then free and is as readily replaced by reverse movements. When the drawer D is pushed in, its back flanges *d* come in contact with the upturned inner ends 6 of the slides C, and the latter are thus caused to move inward with the drawer to their inner positions of rest, Figs. 3 and 5.

In some of the combinations hereinafter claimed the drawer may be of wood or other material and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement,

I claim as my invention and desire to patent under this specification—

1. The combination, substantially as hereinbefore specified, of a metallic sliding drawer having sides projected below its bottom in the form of flanges and provided with tappets at mid-length carried by said flanges, a pair of angle-bar slides, L-shaped in cross-section, having the lower lateral angles of the drawer nested therein, and provided with tappets at their outer ends, in the paths of said tappets on the drawer, to cause the slides to move outward with the drawer and support the fully-opened drawer from beneath, and a casing for the drawer provided with supports beneath said slides, and with guides embracing the upper edges of said slides and stops to limit their outward movement.

2. The combination, substantially as hereinbefore specified, of a metallic sliding drawer having sides projected below its bottom in the form of flanges and provided with elastic

tappets at mid-length carried by said flanges, a pair of angle-bar slides, L-shaped in cross-section, having the lower lateral angles of the drawer nested therein, and provided with tappets at their outer ends, in the paths of said tappets on the drawer, to cause the slides to move outward with the drawer and support the fully-opened drawer from beneath, and a casing for the drawer provided with supports beneath said slides, and with guides embracing the upper edges of said slides and stops to limit their outward movement.

3. The combination, substantially as hereinbefore specified, of a sliding drawer provided with tappets at mid-length beneath its bottom near its respective lateral edges, a pair of angle-bar slides, L-shaped in cross-section, having the lower lateral angles of the drawer nested therein, and provided with tappets at their outer ends, in the paths of said tappets on the drawer, to cause the slides to move outward with the drawer and support the fully-opened drawer beneath, and with tappets at their inner ends to coact with the inner end of the drawer when the latter is pushed inward, and a casing for the drawer having longitudinal supports beneath said slides, full-length way-bars above the same, inner guide-plates clearing the tappets last named and outer guide-plates forming stops in the paths of said last-named tappets.

4. The combination of a metallic sliding drawer having laterally-projecting wired upper edges, and provided with tappets at mid-length beneath its bottom near its respective lateral edges, a pair of angle-bar slides, L-shaped in cross-section, having the lower lateral angles of the drawer nested therein, and provided with tappets at their outer ends, in the paths of said tappets on the drawer, to cause the slides to move outward with the drawer and support the fully-opened drawer beneath, and with tappets at their inner ends to coact with the inner end of the drawer when the latter is pushed inward, and a casing for the drawer having longitudinal supports beneath said slides, and guides embracing the upper edges of said slides, said guides being fixedly attached to the casing beneath said laterally-projecting wired edges of the drawer, substantially as hereinbefore specified.

JOHN M. CORNELL.

Witnesses:

EDWIN MARSHALL,
GEO. W. DEBEVONE.