C. H. WHEELER.

Table-Leaf Supports.

No. 140,102. Patented June 17, 1873.

Fig. 1.

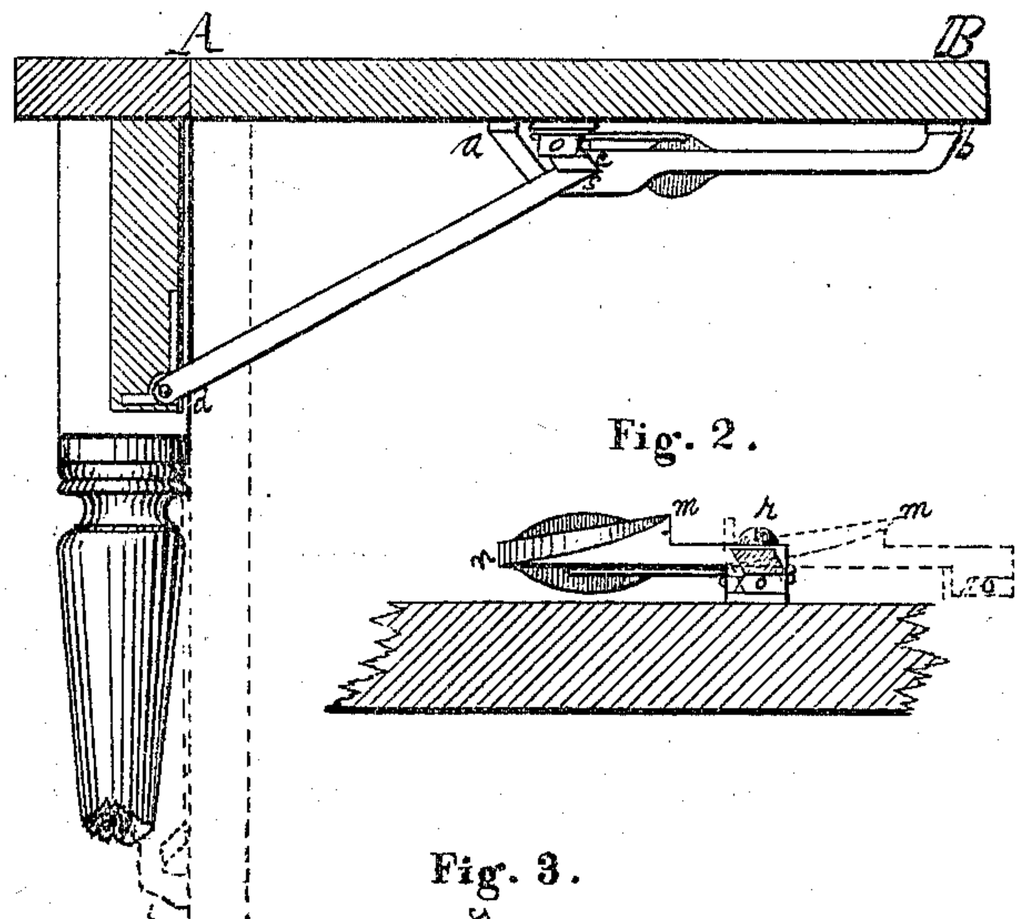
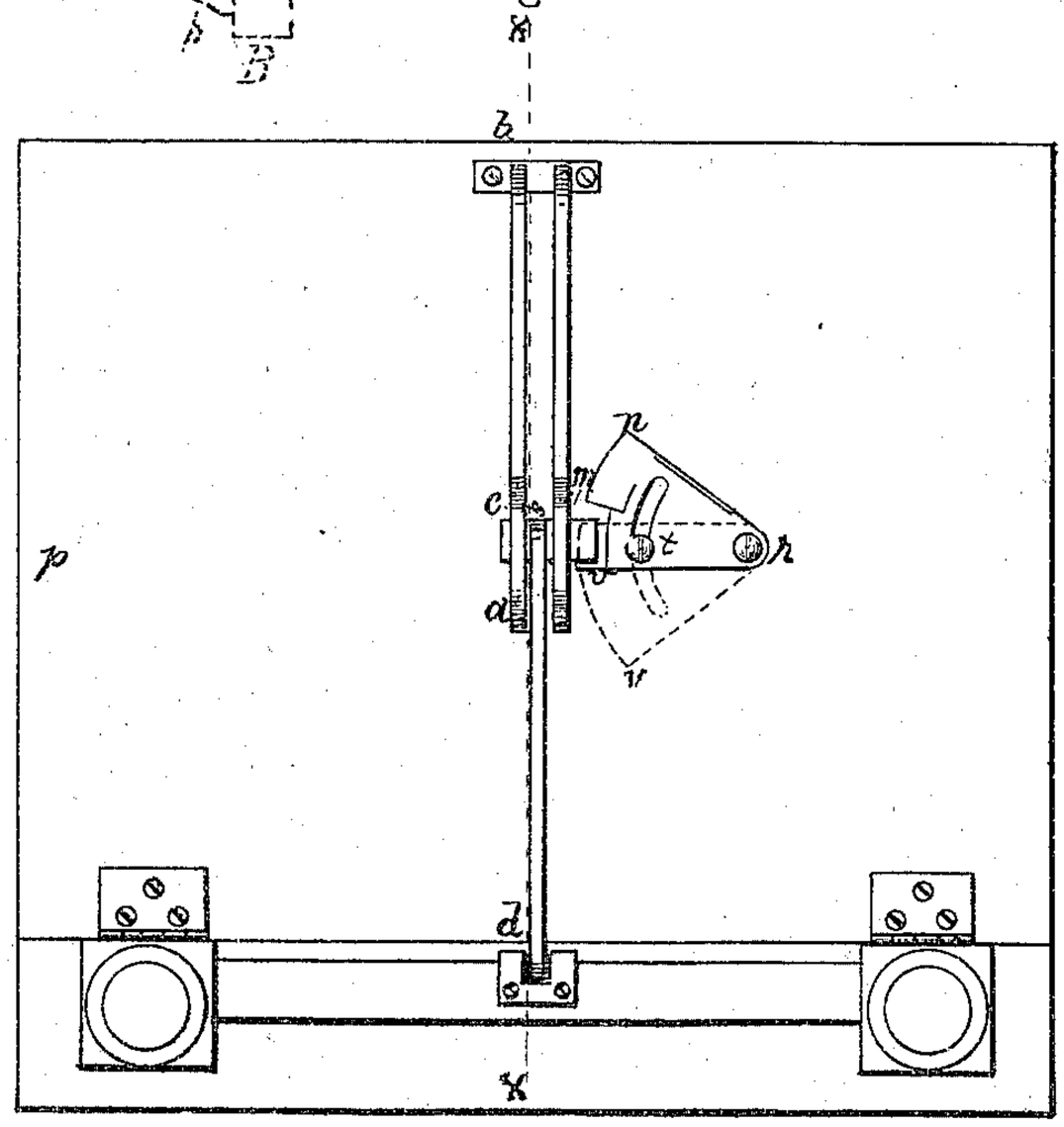


Fig. 2.

Fig. 3.



WITNESSES

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CHARLES H. WHEELER, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN TABLE-LEAF SUPPORTS.

Specification forming part of Letters Patent No. **140,102**, dated June 17, 1873; application filed March 18, 1873.

To all whom it may concern:

Be it known that I, CHARLES H. WHEELER, of Saint Louis, county of Saint Louis, and State of Missouri, have invented an Improvement in a Fall-Leaf Support, to be used upon table-leaves, desks, sewing-machines, or other articles requiring an occasional support, of which the following is an accurate description:

The support is effected by means of a brace or rod with a T-head, moving in a guide attached to the leaf or article to which the support is to be given, adjusting itself in a beveled slot in said guide, and held there or released when required by a cam, hereinafter described.

Figures 1, 2, and 3 in the accompanying plans exhibit the support as applied to a table-leaf. The arrangement and action is substantially the same when applied to desks, sewing-machines, or other articles. Figure 1 is a side elevation, shown in section taken in the line *x x*, Fig. 3. Fig. 2 is a view of the front edge of the locking-cam, as seen from point *p*, Fig. 3, showing the projecting leaves by which the T-head of the supporting bar is operated, the leaf being turned upside down.

A B, in Fig. 1, represents the table-leaf when raised to position and supported by the brace. The dotted lines A B represent the table-leaf when closed. The guide is represented by *a b*, Figs. 1 and 3, said guide being attached to the under side of the table-leaf. Fig. 1 exhibits it as seen from the side opposite the cam; Fig. 3, as seen from beneath. The guide may be double, as shown in the plan, the rod passing through the middle; or it may consist of a single bar, the rod passing at its side and only entering it by its T-head, the action in either case being substantially the same. At *c*, Figs. 1 and 3, is a beveled notch in the guide. *d s* is a rod attached by pivot or hinge to the leg or cross-bar of the table, or ony part of it from which support may best be obtained, and having a T-head at *s*, which moves in the guide before described.

When the table is closed the T-head rests near the extremity of the guide *b*. As the leaf is raised it passes along the guide toward *a*, reaching and falling into the beveled notch at *c*, just as the leaf becomes horizontal. It is there held fast by the beveled edge of the notch, the bearing of which is at right angles to the rod.

The support may be used without the cam, shown in Fig. 2; and when so used the leaf would be lowered by raising the rod from its position in the notch.

The object of the cam is to prevent the rod from being driven from its position in the notch by an accidental blow. It also insures the falling of the rod into the notch, and facilitates its removal when the leaf is to be lowered.

The section-lines in Fig. 2 exhibit the front side of the cam when in locked position, as seen from point *p*, Fig. 3; the dotted lines exhibit the same when unlocked. The small rhomboidal figure in section-lines, seen just under *r*, is the T-head of the rod when in position.

The cam, as seen from beneath, is shown in Fig. 3. It is attached to the leaf by a pivot at *r*, as shown in Figs. 2 and 3, and held in locked position by a spring at *r;* said spring to be made of wire or other suitable material. The inclined leaf of the cam *n m*, best seen in Fig. 2, is designed to raise the T-head of the rod from the notch, when the leaf is to be lowered. As in raising the leaf the T-head passes along the guide, it strikes the projecting leaf *o* of the cam, best seen in Fig. 1, and forces it back toward the position *v*, as seen in Fig. 3. When the T-head falls into the notch, *o* returns to its position, driven by the spring at *r*, and effectually secures the T-head in its place. The slightly inclined edge of *o* serves to press the T-head into the notch, should it fail to fall there by its own weight.

When the leaf is to be lowered a slight pressure on the cam at *n*, being the side nearest the front edge of the table-leaf, forces back *o*, while, at the same time, the projecting leaf *n m* passes under the T-head at *m*, and, by means of its inclined surface, raises and releases the T-head from its position in the notch. The leaf then falls without further hindrance. The unlocked position of the cam is also shown by dotted lines in Fig. 3.

The office of the cam is thus seen to be threefold—to force the T-head into the notch, to se-

cure it when there, and to release it when desired. It is, at the same time, perfectly simple, being cast in one piece. The guide, the rod, and the cam, may each be made of iron, or other suitable material.

The device hereinbefore described is not only intended to be applied to and sold with tables, but also to be sold separately to manufacturers to thus apply.

Your petitioner claims as his invention:

1. The slotted guide, provided near one end with an angular notch, and rigidly attached to or upon the hinged-leaf, in combination with the T-headed swing-rod or brace, substantially as and for the purpose specified.

2. In combination with the slotted and notched guide, and with the T-headed swing or brace-rod, the latch *o*, pivoted at one end upon the hinged-leaf, and at its opposite end engaging with and locking in place the head of said rod, substantially as and for the purpose shown.

3. In combination with the slotted notched guide, and with the T-headed brace-rod, the cam pivoted upon the hinged-leaf, and operating to disengage the head of said rod from the notch of said guide, substantially as and for the purpose set forth.

In witness whereof he hath this day set his hand, this 27th day of February, A. D. 1873.

CHARLES H. WHEELER.

Witnesses:

ROBERT H. PARKINSON,

DAVID F. KAIME.