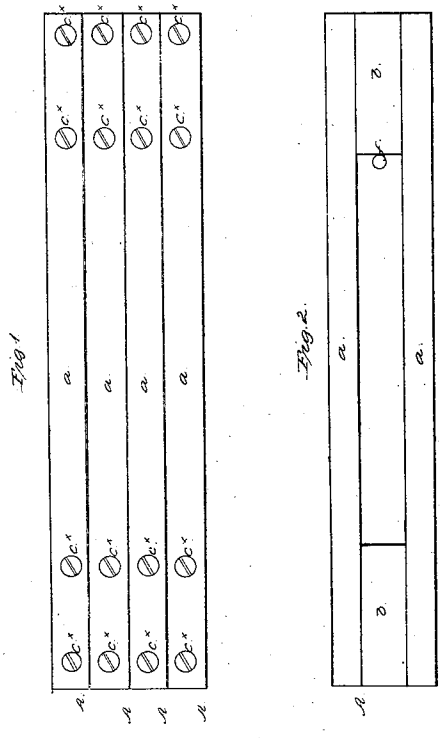
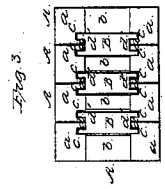
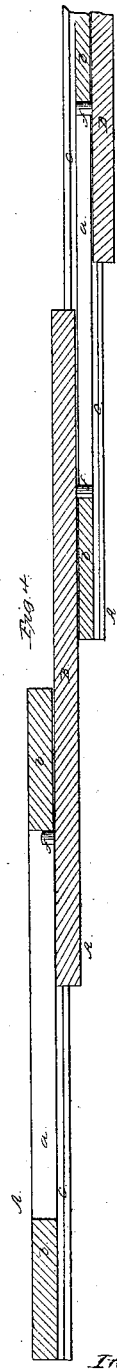
J. F. Birchard,

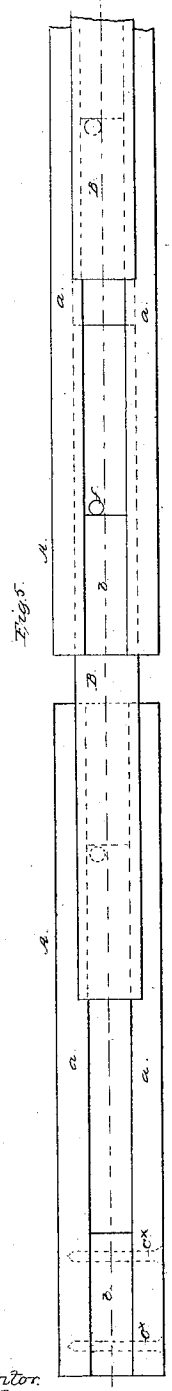
Extension Table,

No. 40,320. Patented Oct. 20, 1863.









Witnesses

Thos. A. Dunlap

M. M. Wright

Inventor.

J. F. Birchard

UNITED STATES PATENT OFFICE.

J. F. BIRCHARD, OF MILWAUKEE, WISCONSIN.

IMPROVED SLIDE FOR EXTENSION-TABLES.

Specification forming part of Letters Patent No. **40,320**, dated October 20, 1863.

To all whom it may concern:

Be it known that I, J. F. BIRCHARD, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Slides for Extension-Tables; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an under view or an inverted plan of my invention; Fig. 2, a side view of the same; Fig. 3, an end view of the same; Fig. 4, a horizontal section of the same in an extended state, taken in the line *x x*, Fig. 5; Fig. 5, a side view of the same in an extended state.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to construct the slides for extension-tables in such a manner as to obviate all difficulties attending the swelling of the wood, and the consequent sticking or binding of the slides, which causes a great deal of embarrassment in extending and closing or contracting the table.

The invention also has for its object strength and durability, together with a greater degree of extension with a given length of slides than hitherto.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a series of wooden slides, (four, more or less,) which are each composed of two parallel bars, *a a*, having end pieces, *b b*, between them, the bars *a* being secured to the end pieces, *b*, by screws $c^{\times}$. These end pieces, *b*, it will be seen, admit of a space being allowed between the bars *a* equal in width to the end pieces, *b*, and in length equal to the distance between the end pieces, as will be fully understood by referring to Fig. 2. The end pieces, *b*, are not quite as wide as the bars *a a*, and consequently a portion of the inner surface of each bar *a* adjoining the end pieces, *b*, is left exposed, and longitudinal grooves *c* are made in these surfaces, said grooves extending the whole length of the bars *a*. (See Figs. 3 and 4.)

The two end slides A of the series have their end pieces, *b*, flush with the outer surfaces of the bars *a*, but the other slides have their end pieces made thinner, so as to leave an exposed inner surface of the bars *a* at each side of the end pieces, *b*, as shown clearly in Fig. 3.

B represents a series of supplemental slide-bars, which are each formed of a single piece of wood, and are each provided with a longitudinal groove, *d'*, at their upper and lower edges. These grooves *d'* are equal in width to double the width of the lips *d*, which are formed at the edges of the bars *a* by the grooves *c*, so that said lips may fit into the grooves *d'*, as shown clearly in Fig. 3. The slide-bars B are of such a thickness that they will fit between the slides A and admit of the latter being in contact with each other. The end pieces, *b*, however, I propose to have a trifle within the line of the grooves *c*, so that the slide-bars B will not come in contact with them and cause unnecessary friction. This will be fully understood by referring to Fig. 3.

From the above description it will be seen that the slides A work on the slide-bars B, and the latter are just equal in length to the slides A. The slides A, therefore, can be drawn out or distended farther than the combined length of all of them, owing to the slide-bars B, which form a connection between the slides A, and firmly support the latter when fully drawn out.

The degree of extension of the slides A is limited by pins *f*, which are driven in the slide-bars B, and, when the slides A are drawn out, come in contact with the inner edges of the end pieces, *b b*, as shown in Figs. 4 and 5.

In case of the slides A sticking or binding by the swelling of either the slides A or slide-bars B, all that is required, in order to obviate the difficulty, is to loosen the screws $c^{\times}$, and, if desired, the grooves *c d* may be made with inclined sides, so as to relieve the rubbing surfaces by a very slight adjustment of the screws $c^{\times}$.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the bars B, when double-grooved, as shown, with the slides A, when made with separate adjustable grooved bars *a a*, end pieces, *b b*, and adjusting-bolts $c^{\times}$, all in the manner herein shown and described.

J. F. BIRCHARD.

Witnesses:

THOS. S. J. DOUGLAS,

M. M. LIVINGSTON.