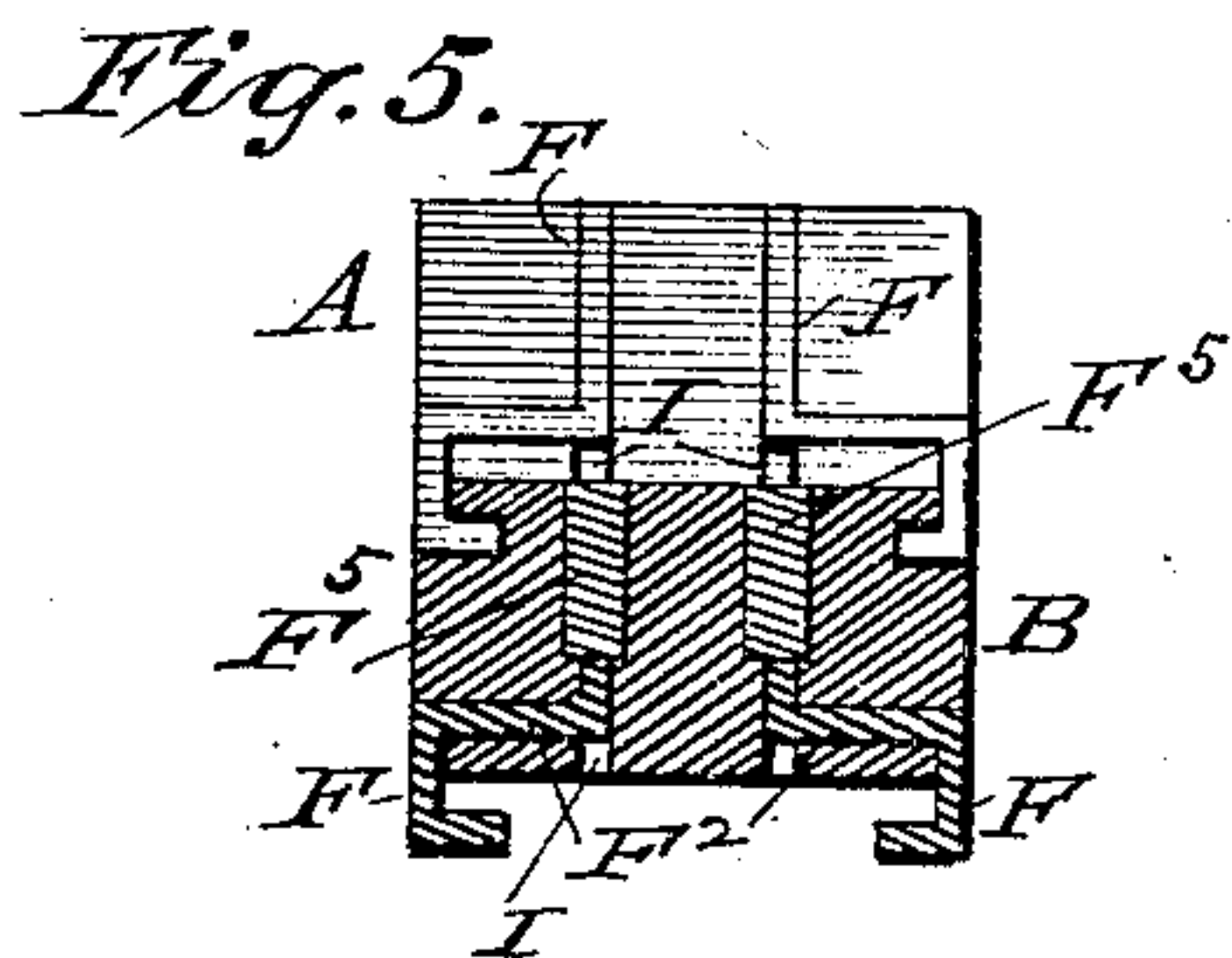
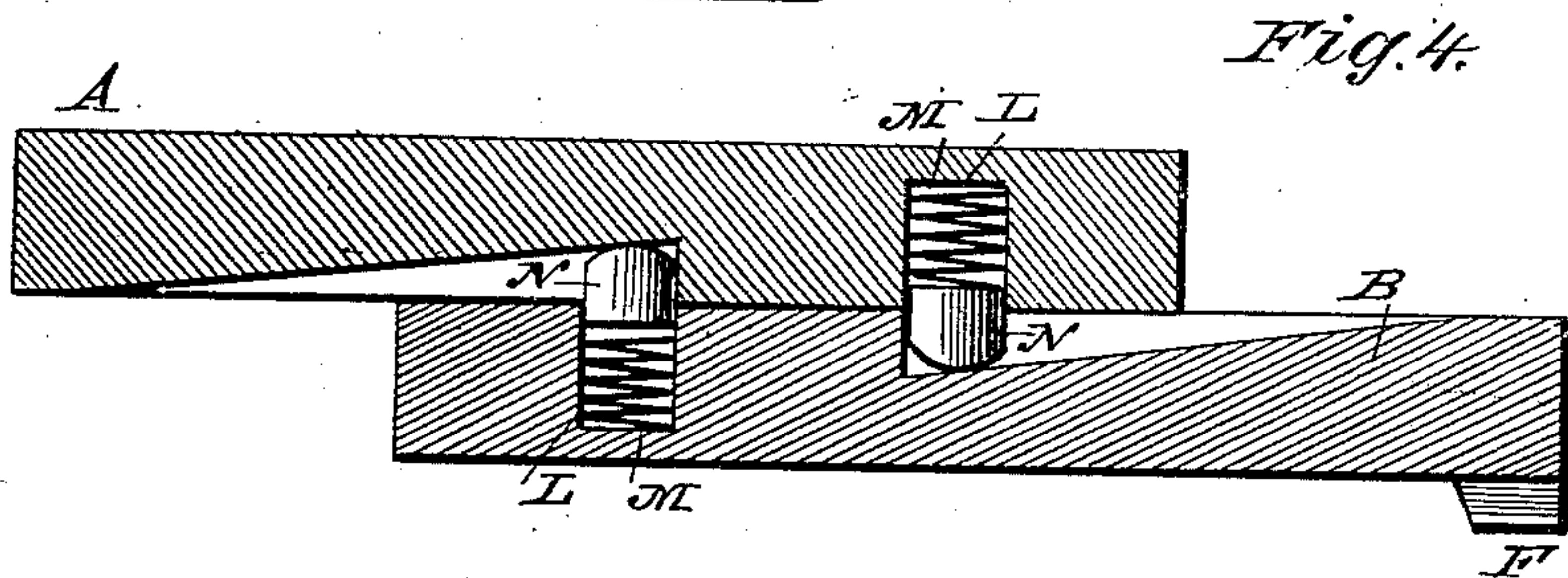
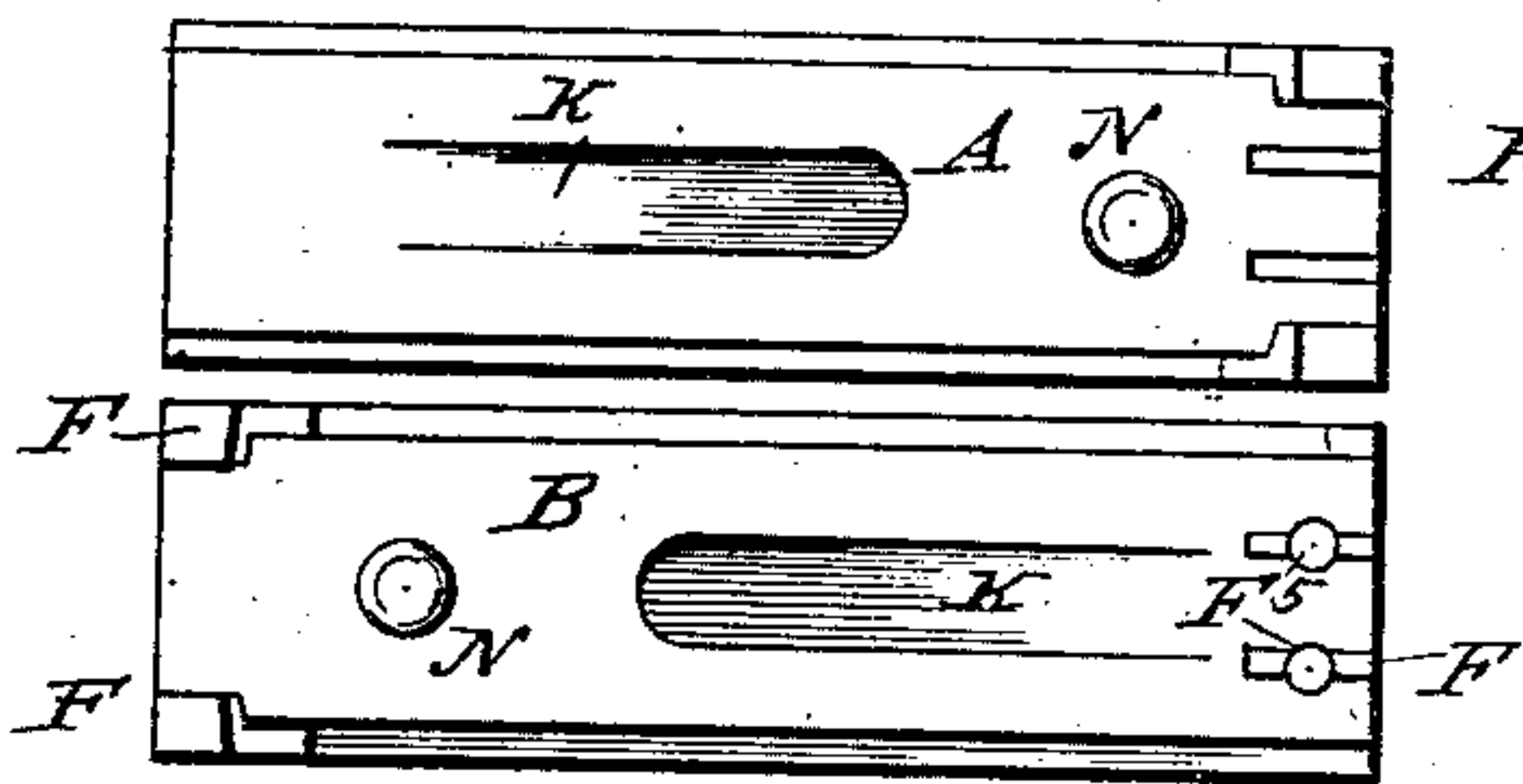
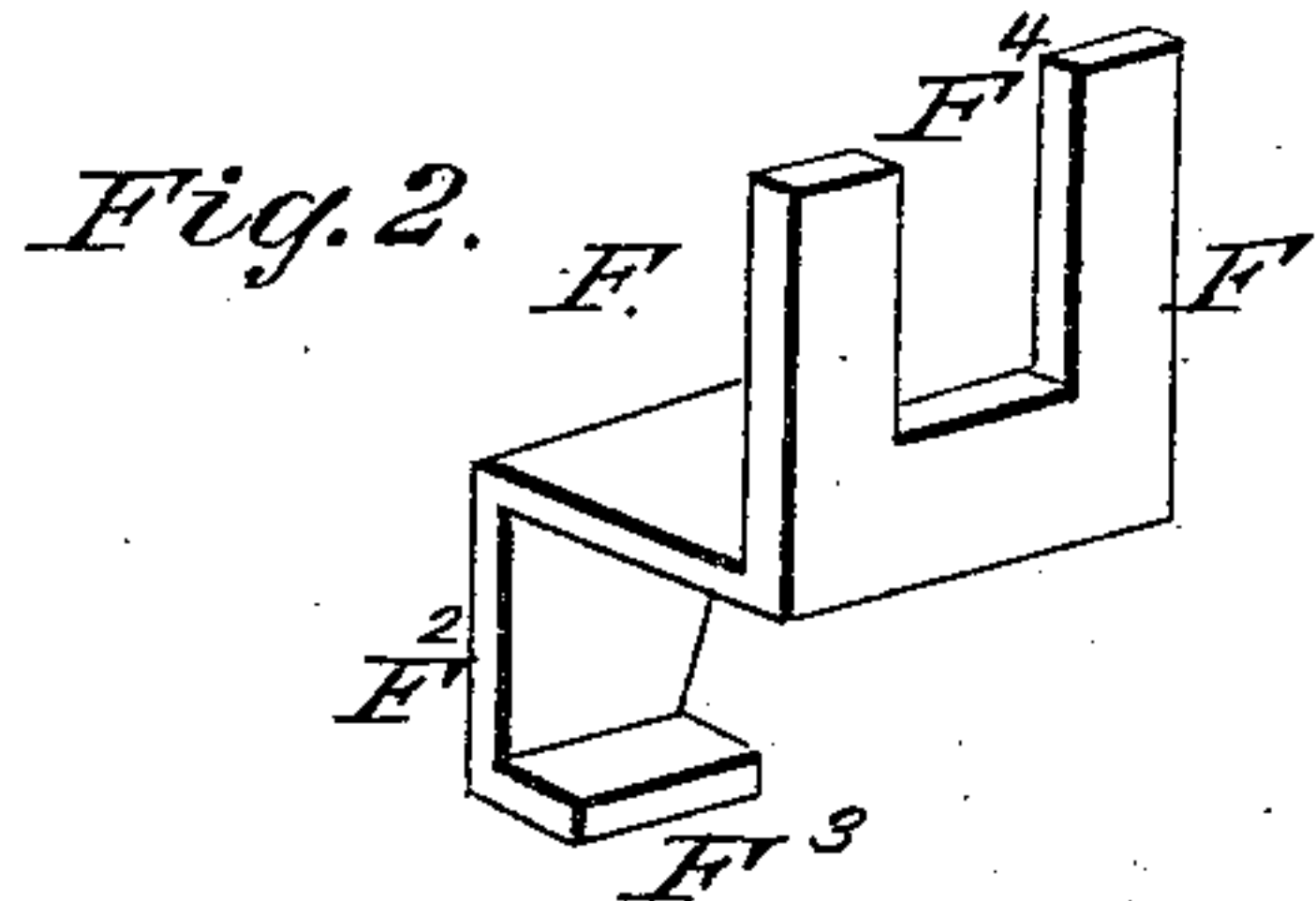
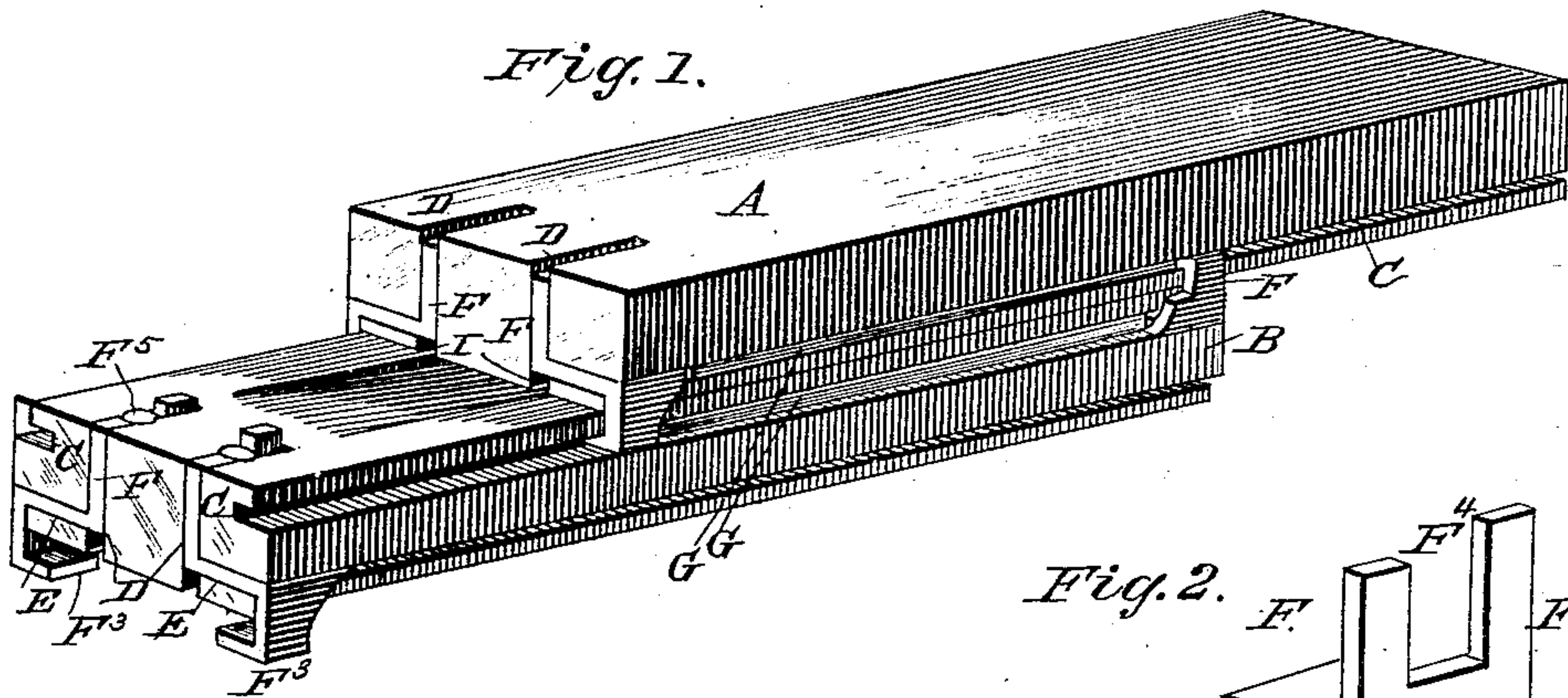


(No Model.)

F. W. NYE.
EXTENSION TABLE.

No. 355,945.

Patented Jan. 11, 1887.



WITNESSES:

Fred G. Dietrich
John E. Stearns

INVENTOR:

F. W. Nye
BY *Murray & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK W. NYE, OF COLUMBUS, OHIO.

EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 355,945, dated January 11, 1887.

Application filed August 26, 1886. Serial No. 211,956. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. NYE, of Columbus, in the county of Franklin and State of Ohio, have invented a new and useful Improvement in Extension-Tables, of which the following is a specification.

My invention consists in certain new and useful improvements in the slides and slide-bars of extension-tables, which will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of the slide-bars of an extension-table in which my invention is embodied, showing the bars open or extended. Fig. 2 is a detail view of one of the metal slides. Fig. 3 is a plan view of the inner adjacent sides of the slide-bars. Fig. 4 is a longitudinal vertical central view of the slide-bars in their closed position; and Fig. 5 is a vertical cross-sectional view taken on the plane indicated by line *x x*, Fig. 4, of the drawings.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A represents the upper and B the lower slide-bar of the series of an extension-table, these bars being formed with the longitudinal side grooves, C C, at a suitable distance from their edges, as shown, and with the vertical end grooves, D, and horizontal end grooves, E, communicating with the said vertical grooves. All of these grooves are cut by saws running at a high rate of speed, making clean smooth cuts through knots or cross-grained timber, leaving the edges as smooth as in clear lumber, each section being brought to its proper width and thickness at one cutting.

F indicates the metal slides, each of which is formed with the vertical stem F' and the L-shaped portion F'', as shown, the vertical stems F' fitting in the vertical end grooves, D, and the stem of the L in the horizontal end grooves, E, the lips F'' of the slides of the upper slide-bar fitting and sliding in the upper longitudinal side groove, C, of the bar next beneath, while the lips of the slides at the other end of the lower slide-bar fit and slide in the lower longitudinal side groove of the upper bar, as shown. The side grooves at one end of each slide-bar—that end in which the metal

slides are secured—are filled with close-fitting strips G G of wood, which are firmly glued therein, making the slide-bars at these points as solid and strong as if the grooves had not been cut, thereby preventing the possibility of the tongues formed by these side grooves being torn off or split by any sudden wrench while the table is extended. These strips are of such a length that when the bars are extended the lips of the metal slides are nearly in contact with them, and if the central stops, which will be hereinafter described, become loose or break, these strips will take the strain of the lips of the slides striking against them, and thus prevent the bars from coming apart or the table from breaking down.

The stems F' of the metal slides are formed with the vertical top slats, F', and the slides are secured in position in the ends of the slide-bars by means of the wooden pegs or keys F'', which are glued in and serve both to make the ends of the slide-bars stronger and to hold the metal slides in position, fitting also into vertical apertures in the ends of the slide-bars, as shown in Fig. 5 of the drawings. One of the prongs forming in the stems of the metal slides extends up about one-fourth of an inch above the upper face of the lower slide-bar, fitting into short recesses I in the lower side of the rear end of the upper slide-bar, A, and thus acting as back-stops, when the frames are closed, to prevent the upper bars from being pushed too far back, dispensing with the slats and pins used in other slides.

The adjacent faces of the upper and lower slide-bars are formed with the inclined recesses K K and the circular recesses L L in line with the said recesses, these recesses being arranged as clearly shown in Figs. 3 and 4 of the drawings; and in these deep circular recesses are placed the spiral springs M M, on which rest the movable pins N N, the spring-actuated pin of one bar fitting and sliding in the inclined recess of the other.

It will be seen that when the frames or sliding bars are opened or drawn apart, that the spring-actuated pins will slide in the inclined recesses until they come in contact with the vertical ends of the said recesses, when they will stop the bars at the proper point, and also

prevent any strain coming against the metal slides when extending the table. It will be seen that these central spring-actuated pins, sliding in the inclined recesses with a steady pressure, materially strengthen the connection between the sliding bars. The pressure of the springs serves to separate the adjacent faces of the sliding bars and prevents them from coming in contact, thereby reducing the friction to the minimum, the springs also yielding, so as to prevent the bars from binding, permitting perfectly free movement of the said bars, and allowing the table to be extended without any of that rattling noise made in opening or closing other tables.

It will be seen that as the table is closed the spring-actuated pins will travel up the inclined recesses, thus bearing with greater pressure against the bars, reducing the momentum of the frames, and causing the table to close without the least shock or jar. The central connection—that is, the spring-actuated pins bearing in the inclined recesses—takes up all vertical strain, while the outside connection—the metal slides fitting around the tongues and in the side grooves of the bars—takes up or holds all horizontal or lateral strain, this arrangement causing the slide-bars and the table to open and close smoothly, easily, and noiselessly.

It will be seen that the side portions of the metal slides are of sufficient length to prevent the adjacent faces of the slide-bars coming into contact, all the friction falling on the inwardly-bent lips F^3 , which slide in the grooves, and the spring-actuated pins, thus reducing friction between the slide-bars to the minimum.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood. It will be seen that the slide-bars can be easily and cheaply manufactured by inexpensive machinery at a considerable saving of time, labor, and

material, the work on the slide-bars being mostly done with ordinary circular saws. My invention is simple, strong, and durable in construction, and exceedingly efficient in its operation. By cutting the grooves in the sides of the slide-bars much smaller bars may be used than heretofore, as the middle sections or bars are not weakened as they are where the main groove is cut centrally. The metal slides are simple in construction and interchangeable.

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

1. The herein-described slide F , consisting of the vertical stem F' , having slot F^1 , the L-shaped portion F^2 , and the lip F^3 , as specified.

2. The combination, with the slide-bars having the longitudinal side grooves, the vertical end grooves, and the horizontal end grooves, of the wooden strips glued or otherwise secured in a portion of the said side grooves and the metal slides, substantially as and for the purpose herein set forth.

3. The combination, with the slide-bars having recesses in their adjacent faces, of spring-pressed pins for pressing the bars apart and limiting the movement of the same, substantially as described.

4. The combination, with the slide-bars having inclined and circular recesses in their adjacent faces, of springs in the circular recesses and pins resting on the said springs, substantially as described.

5. The combination, with the slide-bars having longitudinal side grooves, C , the vertical end grooves, D , and the horizontal end grooves, E , of the slides F , each consisting of the vertical stem F' , having slot F^1 , the L-shaped portion F^2 , and the lip F^3 , substantially as herein shown and described.

FREDERICK W. NYE.

Witnesses:

EDMUND SMITH,
R. L. McCABE.

It is hereby certified that Letters Patent No. 355,945, granted January 11, 1887, upon the application of Frederick W. Nye, of Columbus, Ohio, for an improvement in "Extension Tables," was erroneously issued to said Nye, that the said Letters Patent should have been issued to said Nye and *J. C. Norris*, of same place, said Norris being the assignee of one-half interest in said invention; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 1st day of February, A. D. 1887.

[SEAL.]

D. L. HAWKINS,
Acting Secretary of the Interior.

Countersigned:

R. B. VANCE,
Acting Commissioner of Patents.