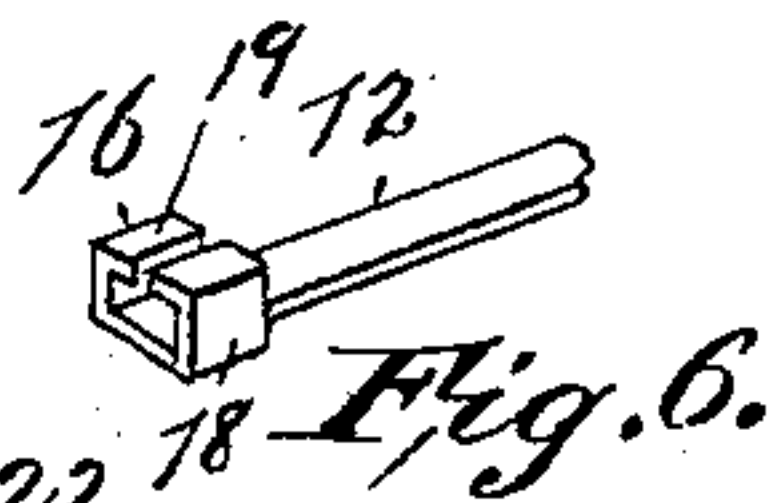
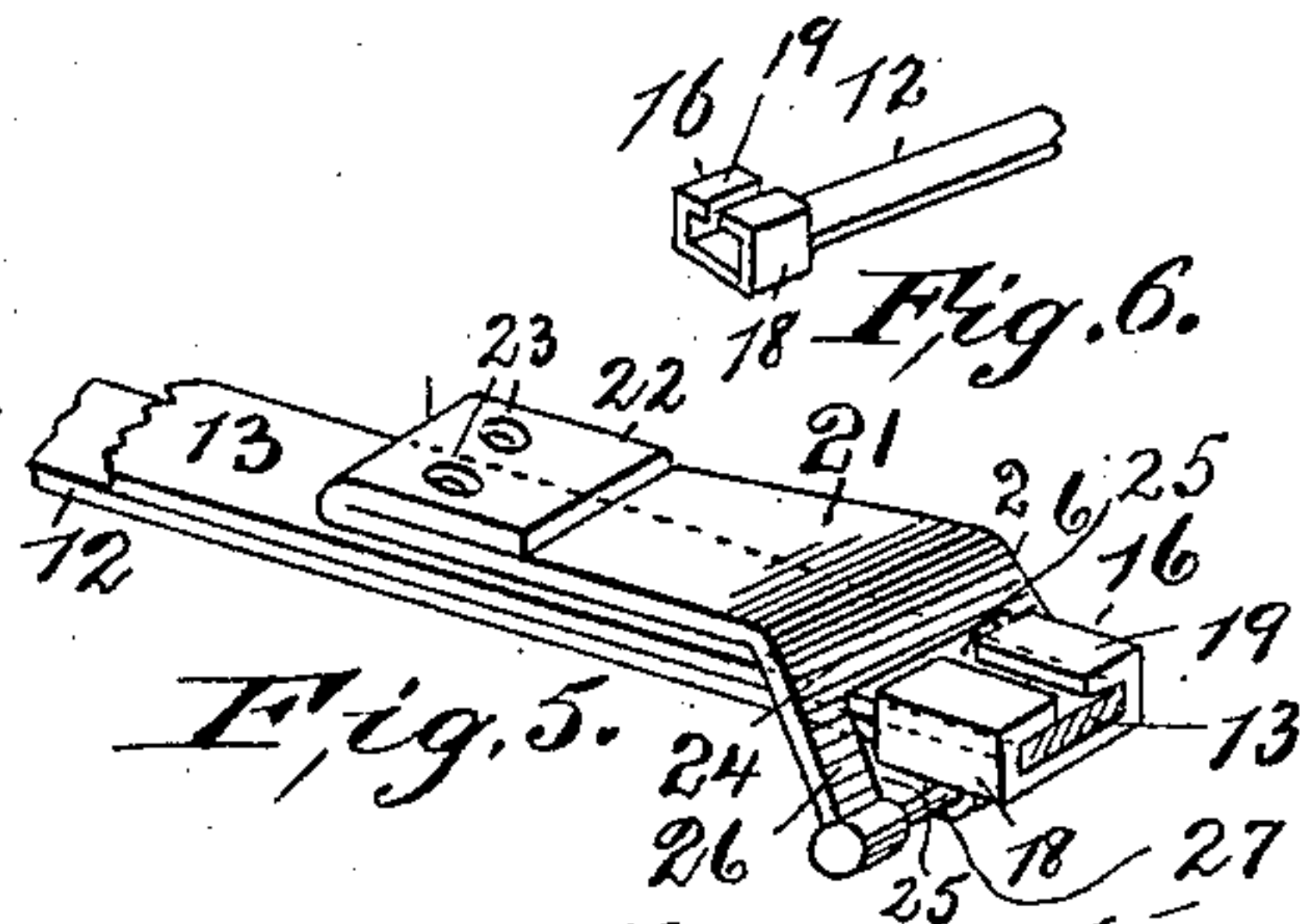
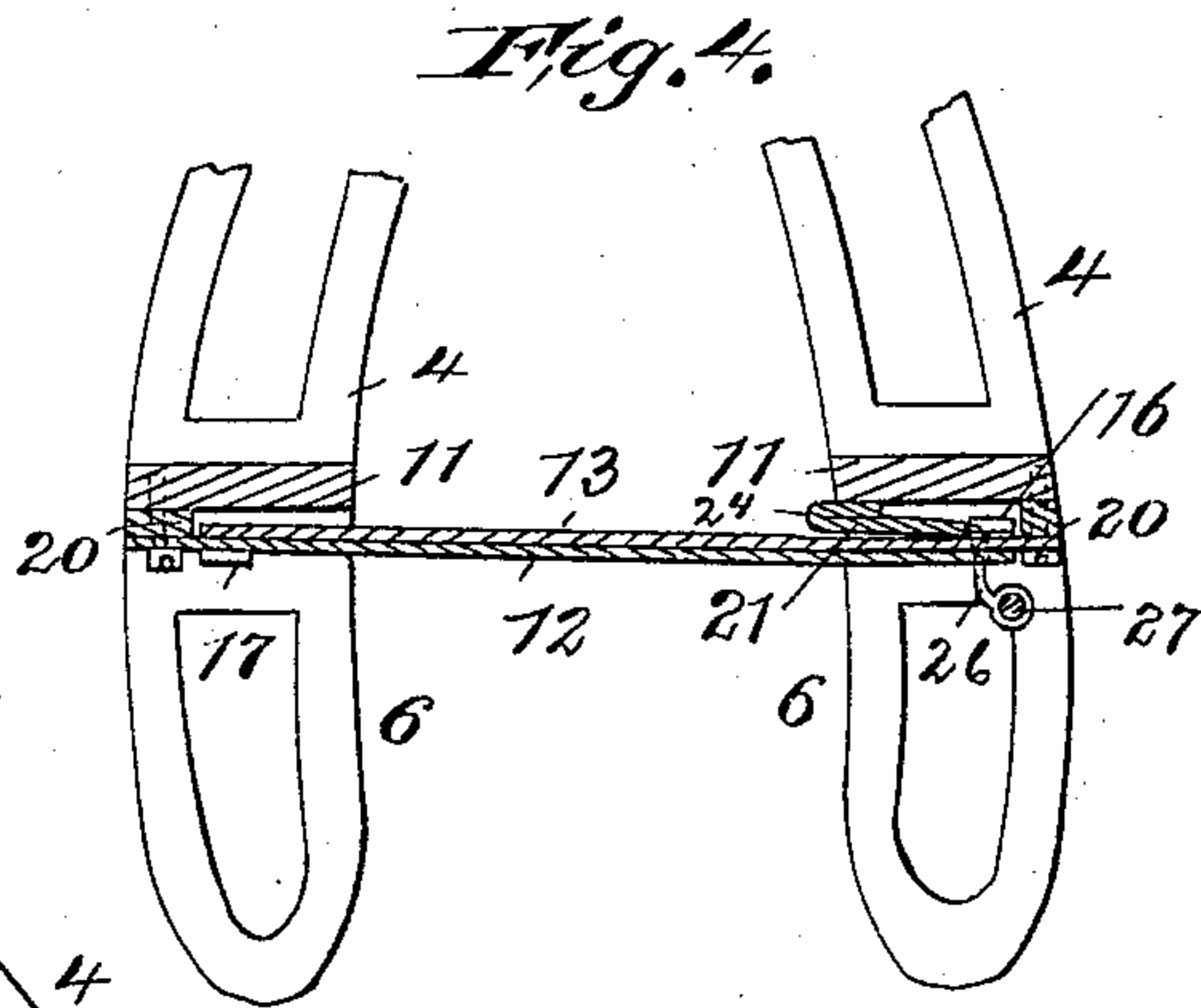
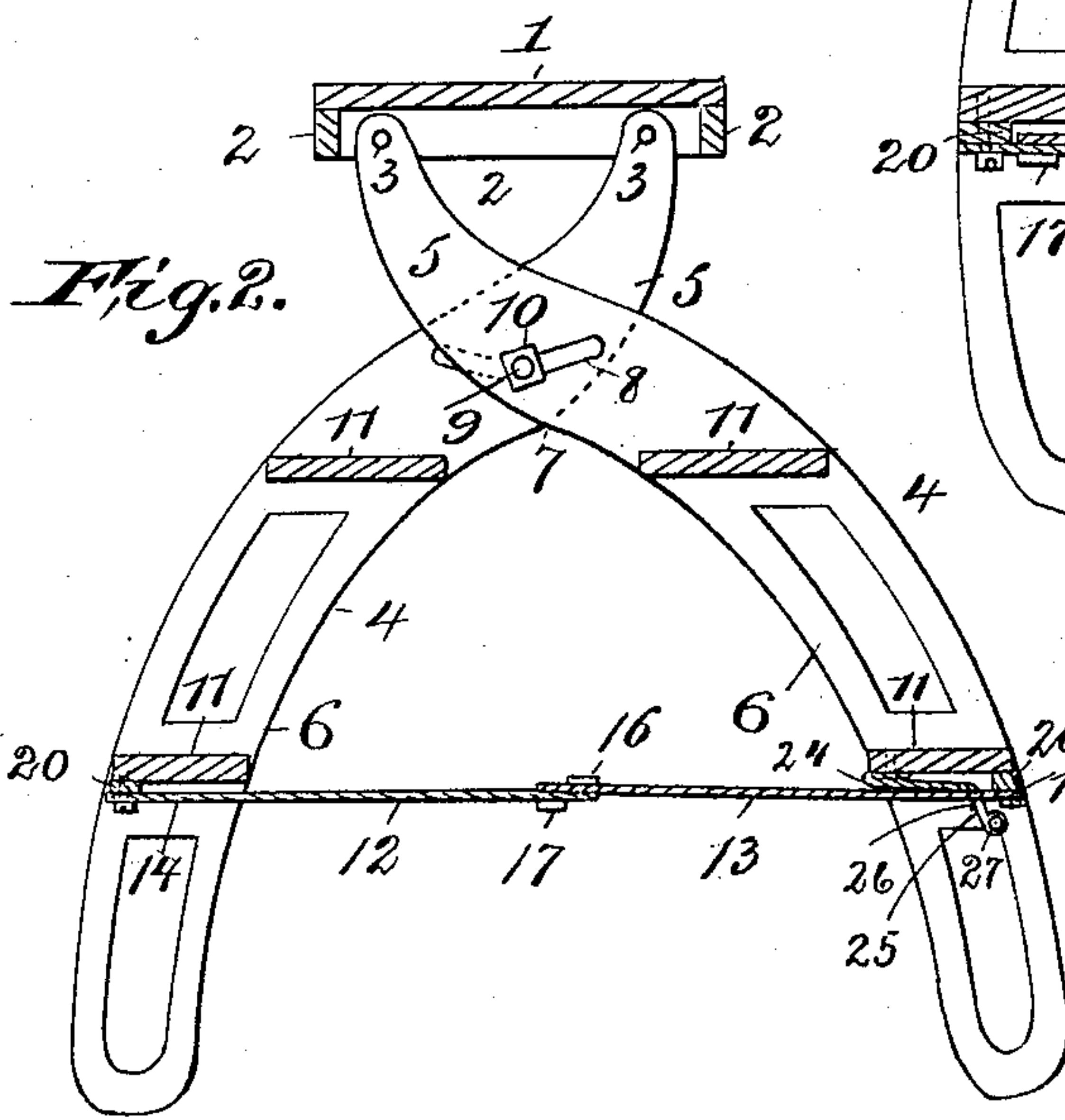
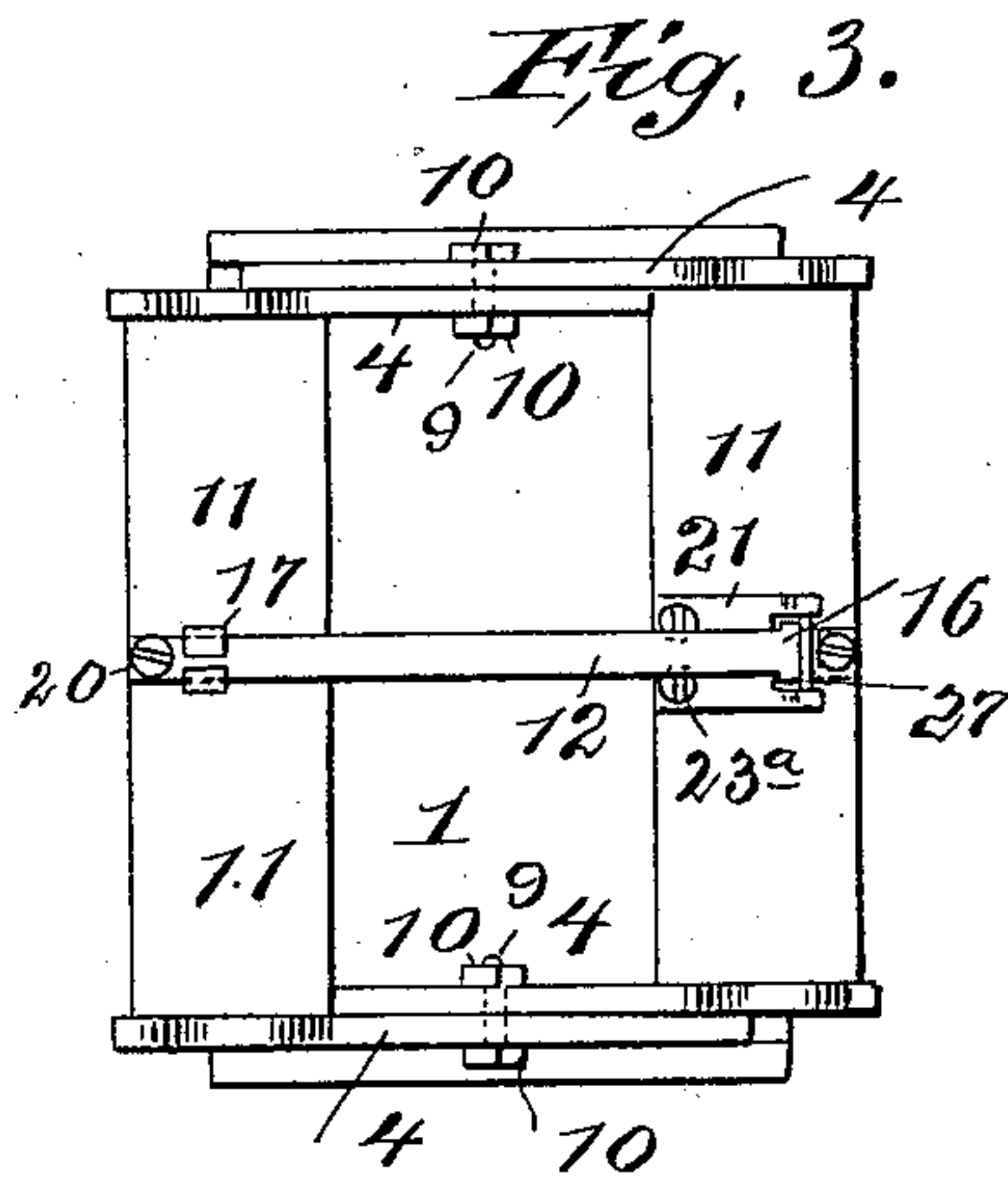
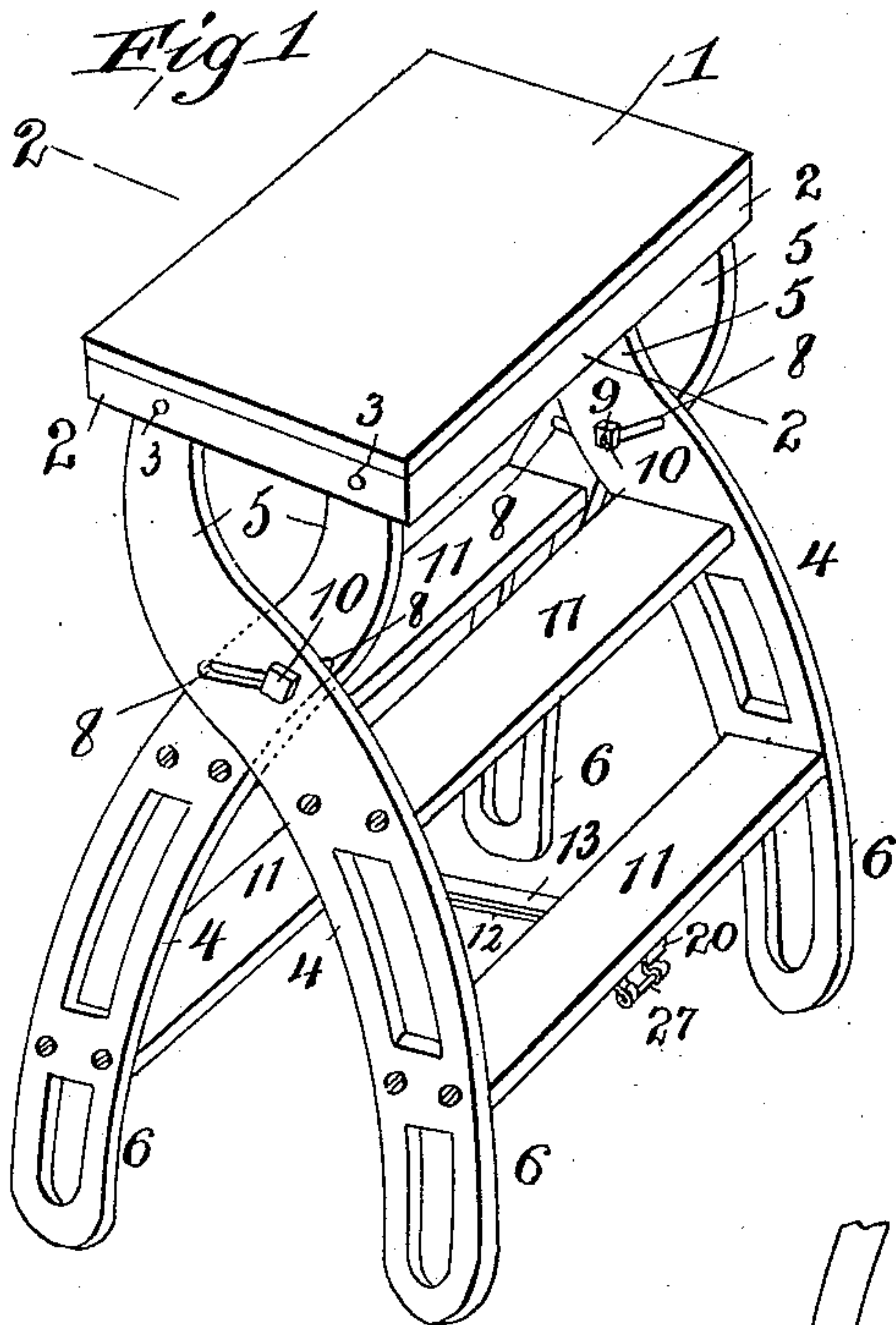


(No Model.)

S. W. STERN.
COMBINATION TABLE AND STEP LADDER.

No. 585,166.

Patented June 22, 1897.



attest:
C. M. Benjamin
Witness

Inventor:
Solomon W. Stern;
By Joseph H. Day
his atty

UNITED STATES PATENT OFFICE.

SOLOMON W. STERN, OF NEW YORK, N. Y., ASSIGNOR OF THREE-FOURTHS
TO ISIDOR STERN, OF SAME PLACE.

COMBINATION TABLE AND STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 585,166, dated June 22, 1897.

Application filed March 3, 1897. Serial No. 625,863. (No model.)

To all whom it may concern:

Be it known that I, SOLOMON W. STERN, a citizen of the United States, residing at the city, county, and State of New York, have invented a certain new and useful Combination Table and Step-Ladder, of which the following is a specification.

My invention relates to household furniture; and it consists in the combination, with a table or top, of interfulcrumed legs pivoted at their tops at diagonally opposite points, one or both of the legs being provided with steps and crossing each other adjacent or near their upper ends, at which points they are fulcrumed together, the legs when at their inward or closed limit projecting but slightly beyond the plane of the table or top and when extended to their full limit presenting their steps beyond the plane of the table or top, allowing the device to be used in the first position as a table and in the latter as a step-ladder.

My invention also consists in the combination, with the table or top, of the crossed and interfulcrumed legs provided with transverse and alining slots and a pivot and connecting pin movable in the slots and with the legs to fulcrum them together at their point of crossing and limit their outward movement.

My invention further consists in the combination, with the table or top, of the crossed and interfulcrumed legs and a combined latch and stop for securing the legs in the closed position and limiting their extension and bracing them together.

My invention further resides in the details of construction and combination of parts hereinafter described, and further pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view of a device embodying my invention when used as a table. Fig. 2 is a sectional elevation of the same on the plane 2 2, Fig. 1, the legs being extended to form a step-ladder. Fig. 3 is a plan view of the same inverted. Fig. 4 is an enlarged sectional elevation of the lower portions of the legs, showing the same in the closed position with the latch engaged to hold them closed. Fig. 5 is an enlarged perspec-

tive view of one end of the latch and stop, and Fig. 6 a like view of one end of the stop.

Similar numerals of reference indicate corresponding parts throughout the several views.

In the drawings, 1 indicates the top, of any desired shape, shown as rectangular and having depending sides 2, to which are pivoted, by pins 3, the legs 4, preferably curved, as shown, the upper portions 5 being curved reversely to the lower portions 6, each pair of legs crossing each other at 7, which point is closely adjacent the top 1.

At the points of crossing the legs are provided with transversely-extending slots 8, through which extends a pin 9, provided with enlarged heads or nuts 10, the pins uniting the legs, allowing them to swing on their pivots 3.

In the closed position, as in Figs. 1 and 3, it will be seen that the legs do not extend inordinately beyond the plane of the top 1, when the device may be used as a table, stand, or the like, and at which time the pins 9 will lie loosely in the slots 8, and when opened, as in Fig. 3, the pins 9 will come in contact with the inner ends of the slots, arresting the outward movement of the legs, taking the strain off the pivots 3, and bringing the steps 11, each of which is secured to the legs on each side below the point 7 of crossing, beyond the plane of the top 1, allowing of its use as a step-ladder, the paired legs crossing each other above their centers and being secured to the top 1 at points diagonally opposite their portions below the point of crossing, allowing of considerable compacting of the legs together for the closed position and a like extension of the stepped portions of the legs for the open or extended position, with the consequent features of utility in both positions.

It is apparent that the above results could be accomplished were the legs straight instead of curved, as means could be employed to give the slots 8 their proper degree of extension to properly combine with the pins 9 and the steps 11 suitably supported without giving the legs the curved form.

In order to tie the opposing pairs of legs together, securely lock them in their closed po-

sition, and limit their extension, I have provided the following cheap and efficient device:

At 12 13 are two flat bars secured at their outer ends 14 15 to the under side of the lower steps 11, their inner ends having squared sleeves 16 17, each being formed of side pieces 18 and top ears 19, forming a rectangular socket to receive the bars 12 13 and allow them to telescope on each other, and coming together, as in Fig. 2, arresting the extension of the legs.

At 20 are spacing-blocks inserted between the steps 11 and the bars 12 13 to form a space between the steps and bars to allow of the sockets passing below the former.

One of the steps 11 is provided with a spring-plate 21, having at one end an enlargement 22, formed either by bending the metal of the plate over on itself, as shown, or otherwise, in which are formed holes 23 for the passage of screws 23^a to affix the end of the plate to the under side of the step 11 and in line with the plane of movement of the sleeve 16, the front or free end of the plate being bent down to form a tongue 24, in the end of which is formed an opening 25 large enough to allow of the sleeve 16 to pass freely through, the arms 26, formed in the tongue by the opening 25, being provided with a cross-bar 27 to tie the arms together and provide a handle for bending the tongue 24. The plate and tongue on the one hand and sleeve 16 on the other form a latch for holding the legs in the closed position.

The plate 21 lies between the step 11 and bar 13, closely adjacent the latter, and when the sleeve 16 is moved toward said plate in bringing the legs to their closed position the sleeve will pass under the plate, lifting it, and on passing through the opening 25 in the tongue will spring back and present its edge in line with the ears 19, thereby preventing the sleeve 16 from passing the tongue and holding the legs together in the closed position.

To free the sleeve from the tongue, it is only necessary to spring the latter toward the step, when the opening 25 will be brought in line with the sleeve, allowing the latter to pass through.

By reference to Fig. 4 it will be seen that the sleeves 16 17 are in line with the spacing-blocks 20 when the legs are closed, so that blocks can act as abutments or stops to limit the inward movement of the legs.

Having described my invention, I claim—

1. In an article of the class described, the combination with the top piece, of the paired legs pivoted to the top piece on each side at diagonally opposite points, crossing each other above their centers, there being slots formed in the legs at the points of crossing, and pins movable in the slots and connecting the adjacent legs of each pair, substantially as described.

2. In an article of the class described, the combination with the top piece, of the legs paired by intervening and connecting steps and pivoted to the top piece on each side at diagonally opposite points and crossing each other above their centers, and means for limiting the inward and outward movement of the legs with respect to each other, substantially as described.

3. In an article of the class described, the combination with the top piece, of the paired legs, each leg having the reversed-curve portions 5 and 6, the curved portion 5 of each leg being the shortest, each pair of legs crossing the other at the portion 5 and pivoted to the top piece at points diagonally opposite the portions 6, and steps 11 connecting the legs of each pair together, substantially as described.

4. In an article of the class described, the combination of the top 1, with the reversely-curved legs, the upper end of each leg being pivoted to the top at a point opposite the lower end and crossing the other at each end of the top above their centers, there being alining slots 8 formed in each pair of legs at the points of crossing, and headed pins 9 passing through each pair of slots and movable therein, substantially as described.

5. The combination with the top 1, of the legs 4 pivoted thereto and provided with steps 11, a plate 21 secured to one of the legs having spring-tongue 24 and an opening 25, the bars 12, 13 secured at their ends to the opposing steps 11 and having sleeves 16, 17 movable thereon, the sleeve 16 being adapted to pass through the opening 25 to engage the tongue 24, substantially as described.

Signed in the city, county, and State of New York this 2d day of March, 1897.

SOLOMON W. STERN.

Witnesses:

JOSEPH L. LEVY,
WM. JACOBSEN.