

No. 621,660.

Patented Mar. 21, 1899.

H. J. HALLE.
TYPE WRITING MACHINE SUPPORT.

(Application filed June 13, 1898.)

(No Model.)

6 Sheets—Sheet 1.

Fig. 1.

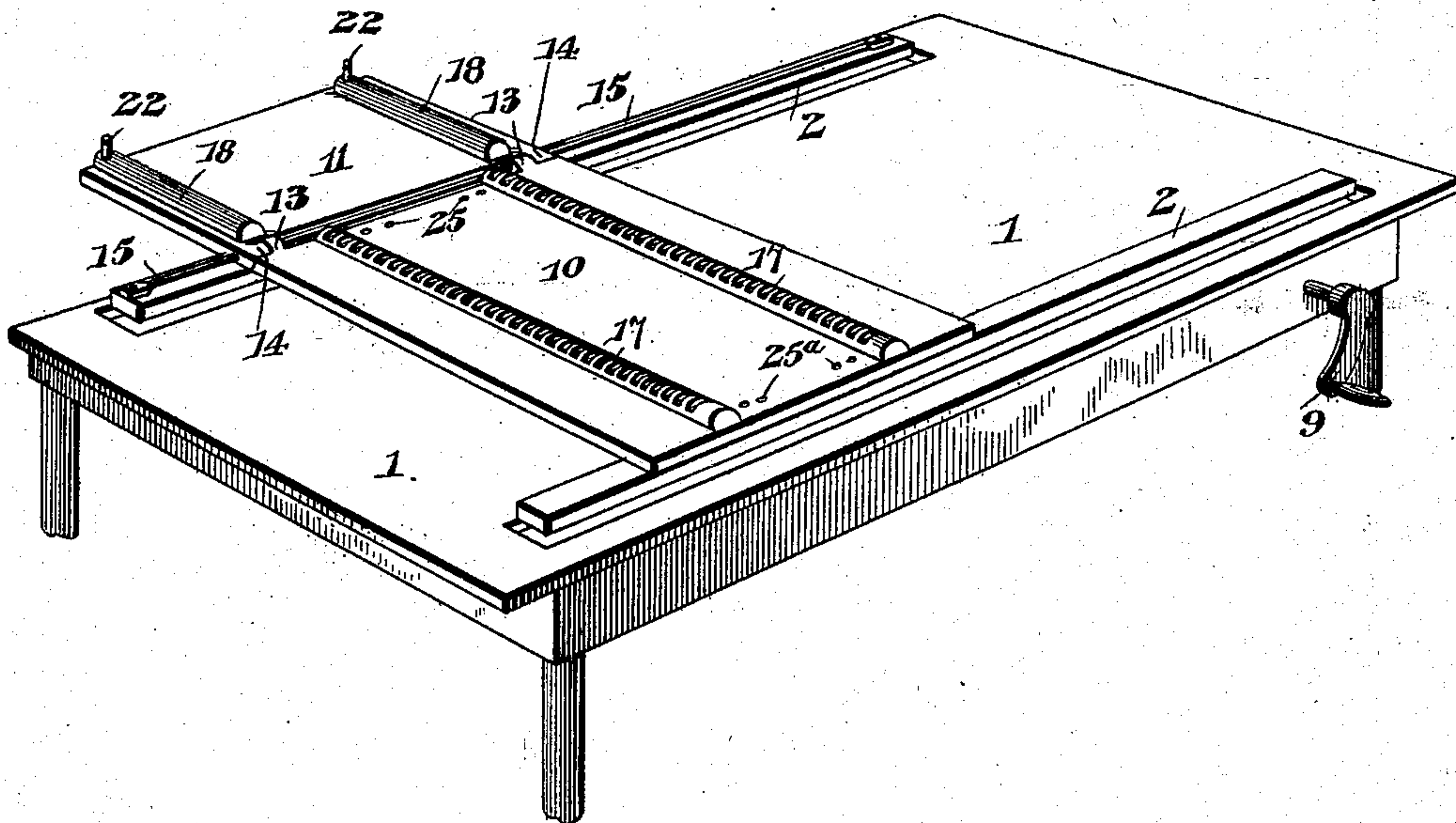


Fig. 2.

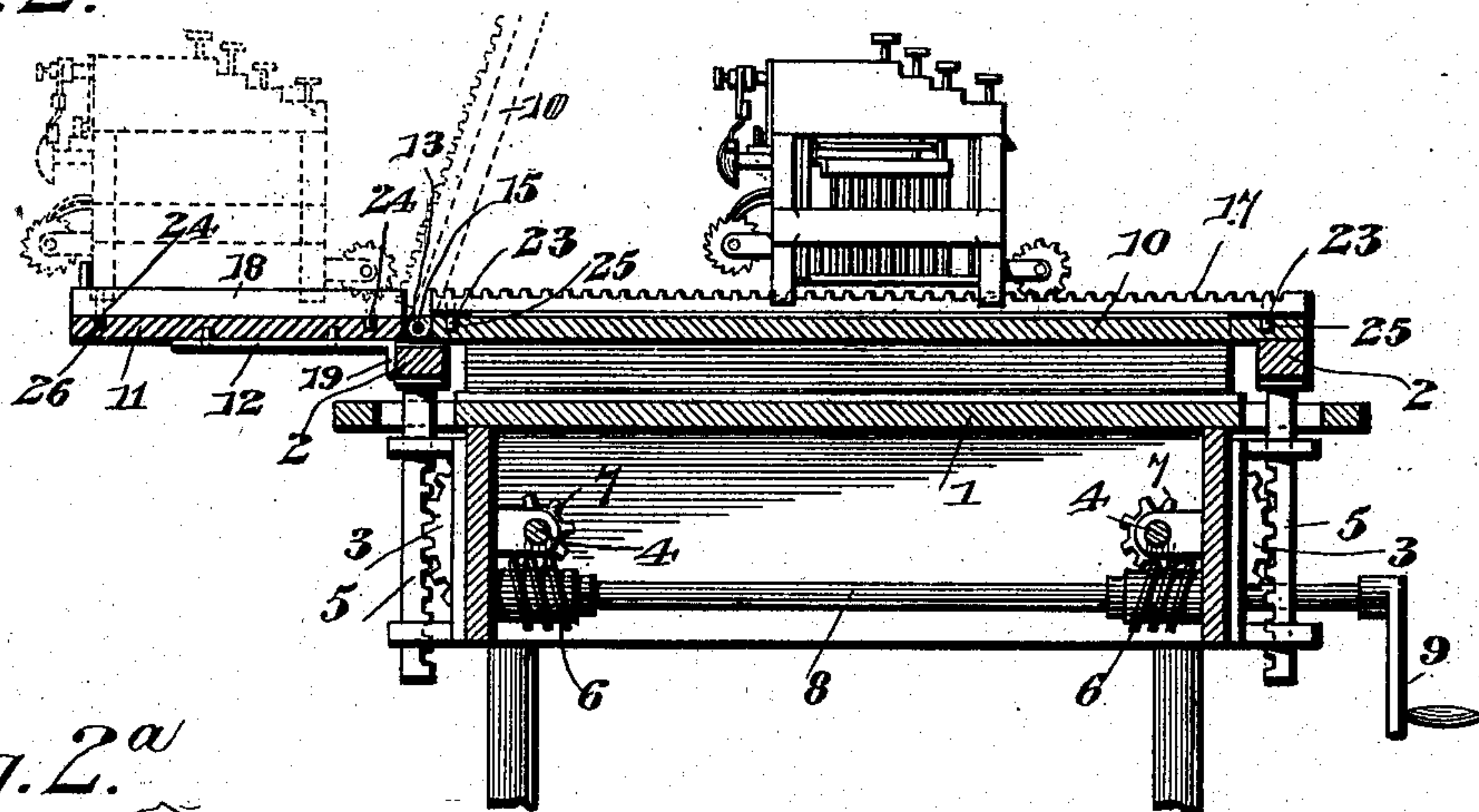
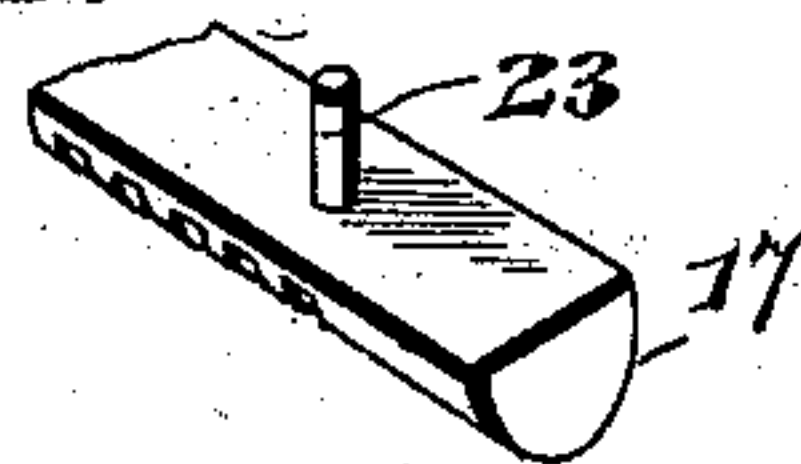


Fig. 2^a



Witnesses

Jas. H. McElthrian

[Signature]

Hiram J. Halle, Inventor

By his Attorneys,

Chas. H. Co.

No. 621,660.

Patented Mar. 21, 1899.

H. J. HALLE.
TYPE WRITING MACHINE SUPPORT.

(Application filed June 13, 1898.)

(No Model.)

6 Sheets—Sheet 2.

Fig. 3.

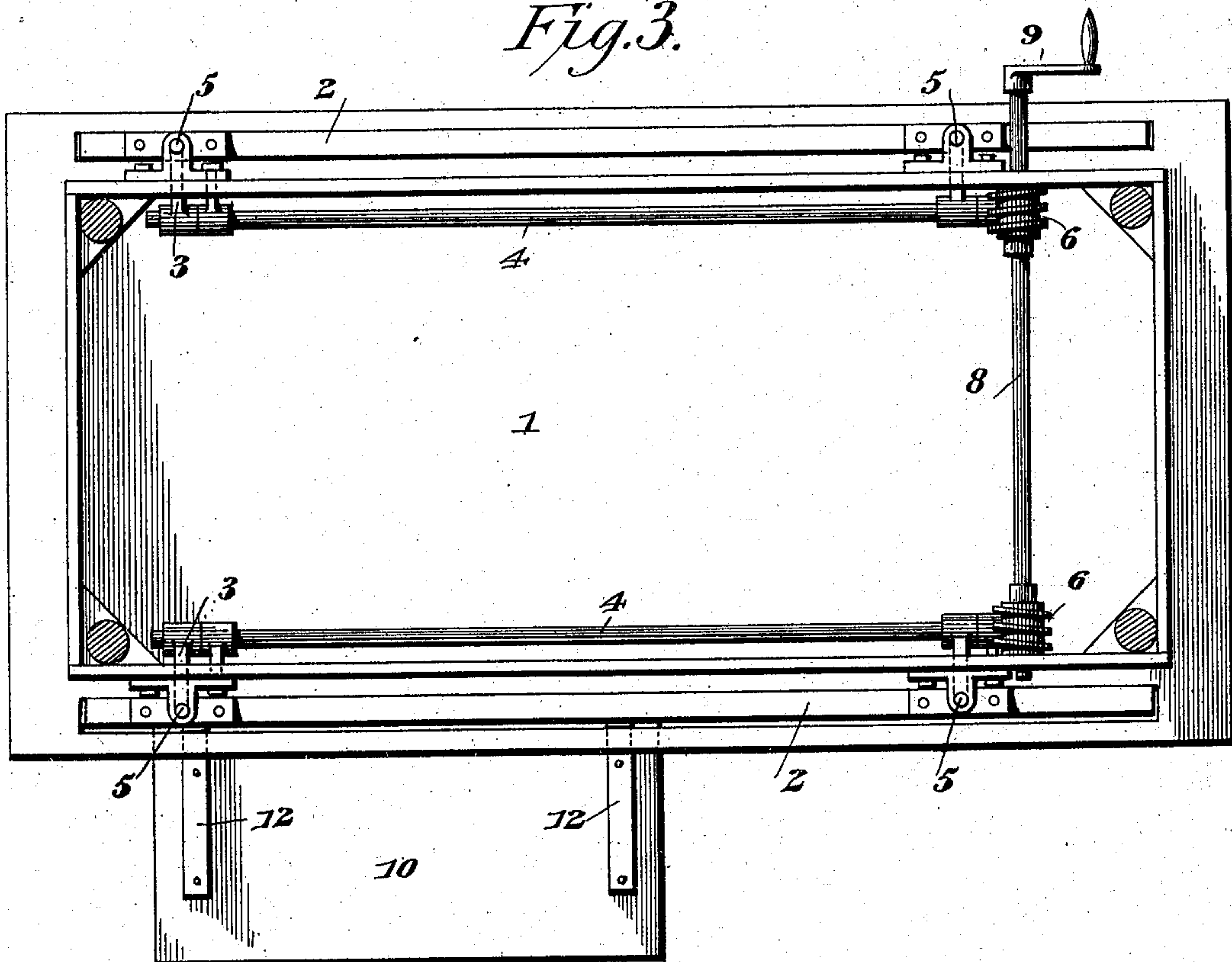


Fig. 4.

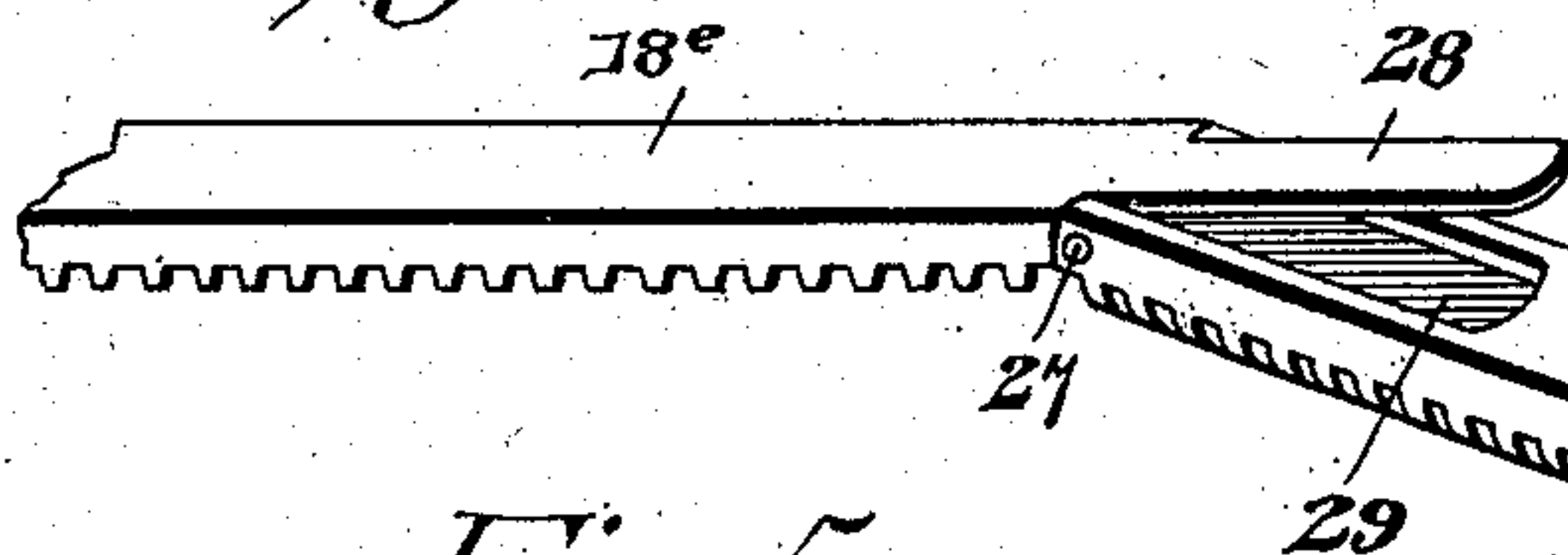


Fig. 6.

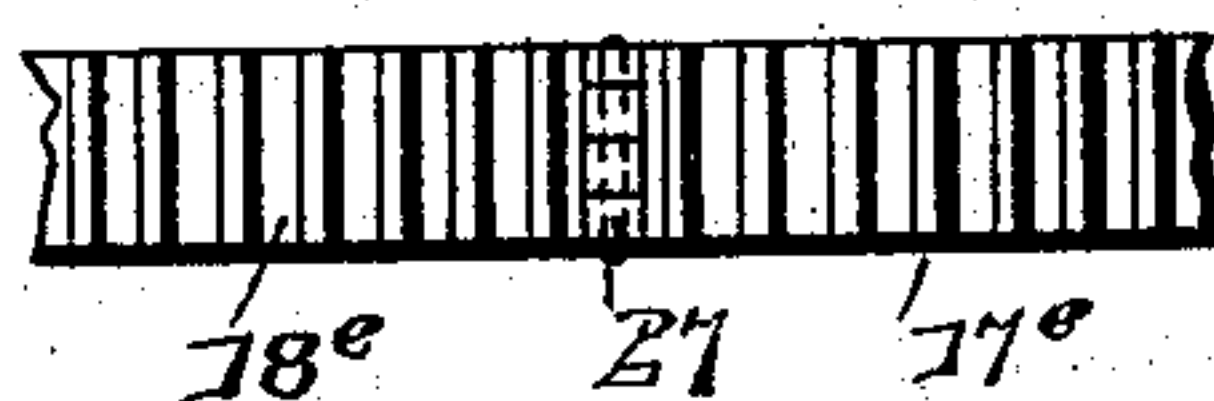
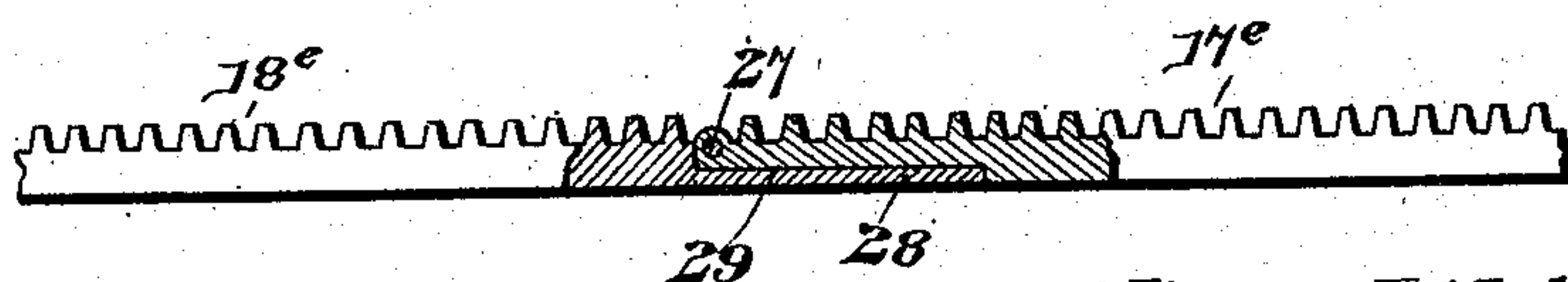


Fig. 5.



Witnesses

Jas. K. McLaughlin
[Signature]

By his Attorneys,

Hiram J. Halle, Inventor

Chas. H. Co.

No. 621,660.

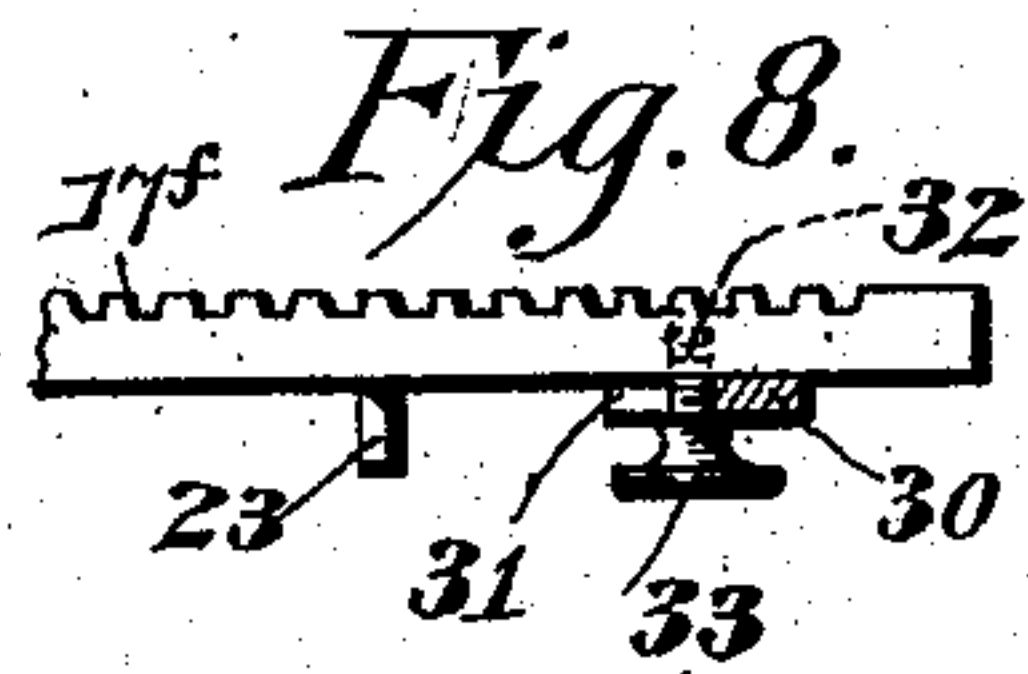
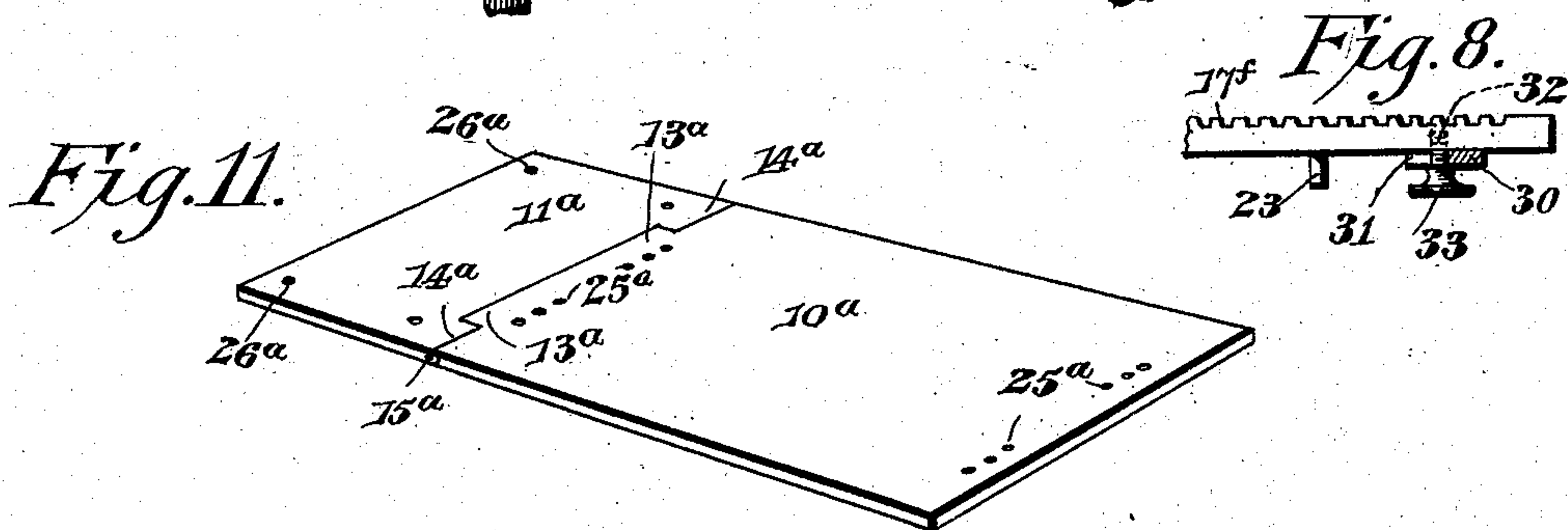
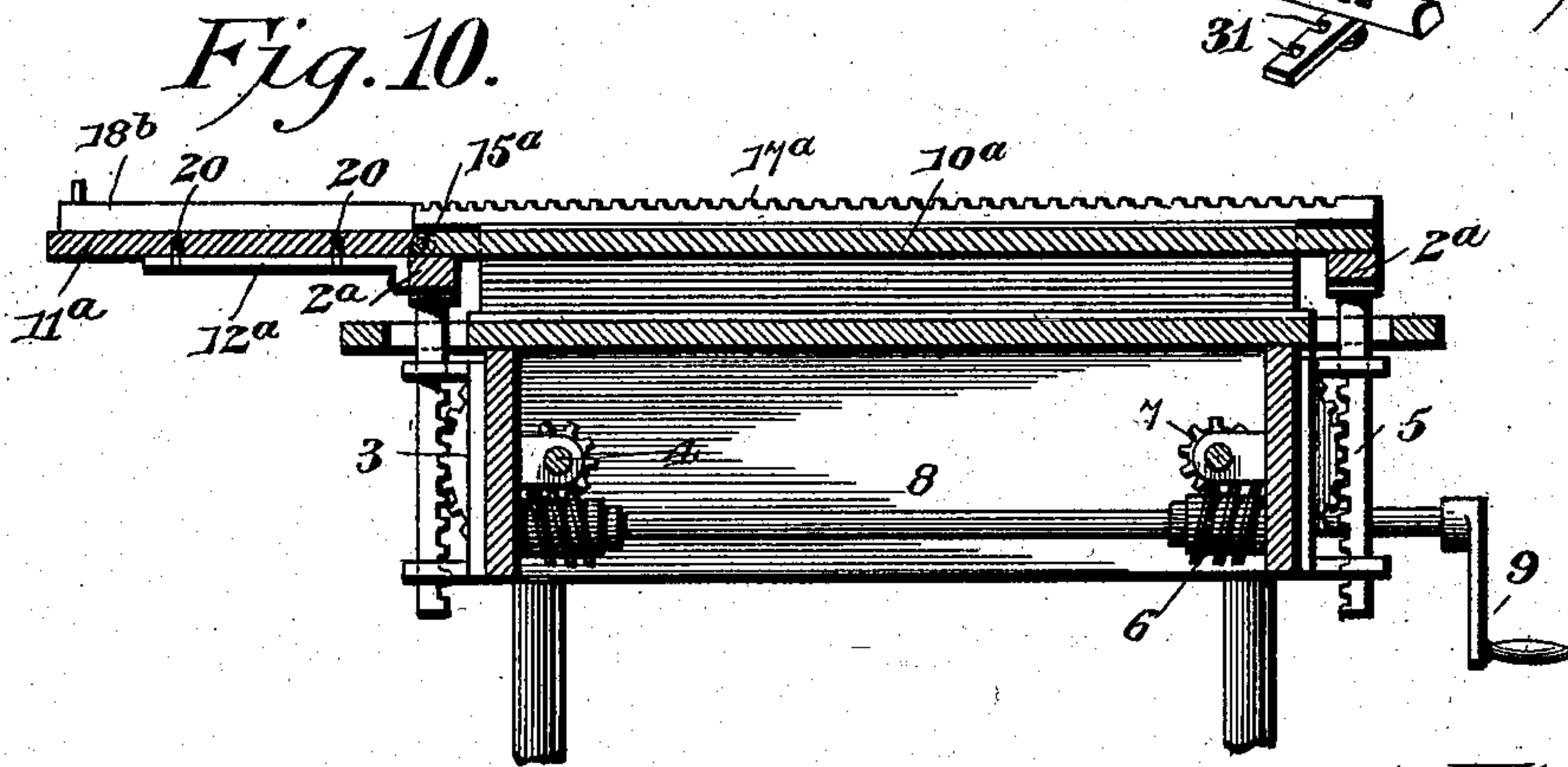
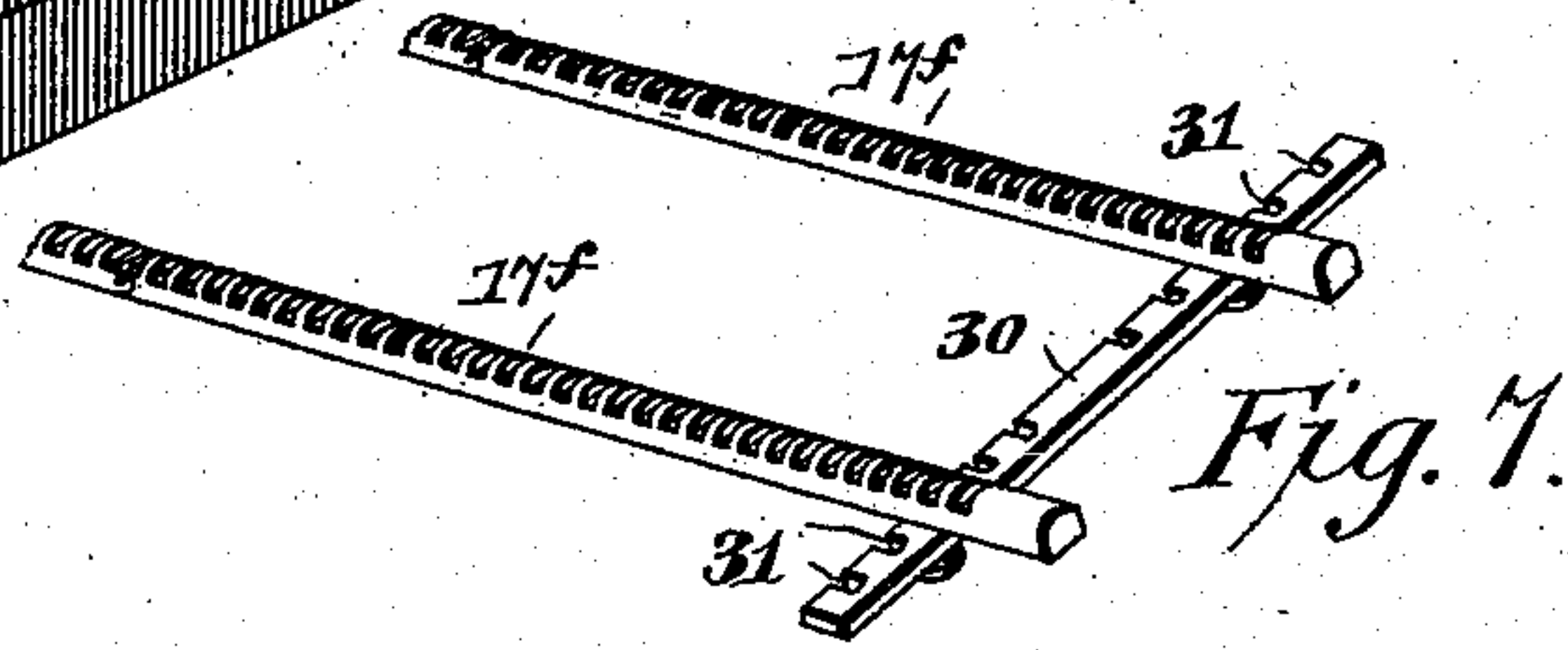
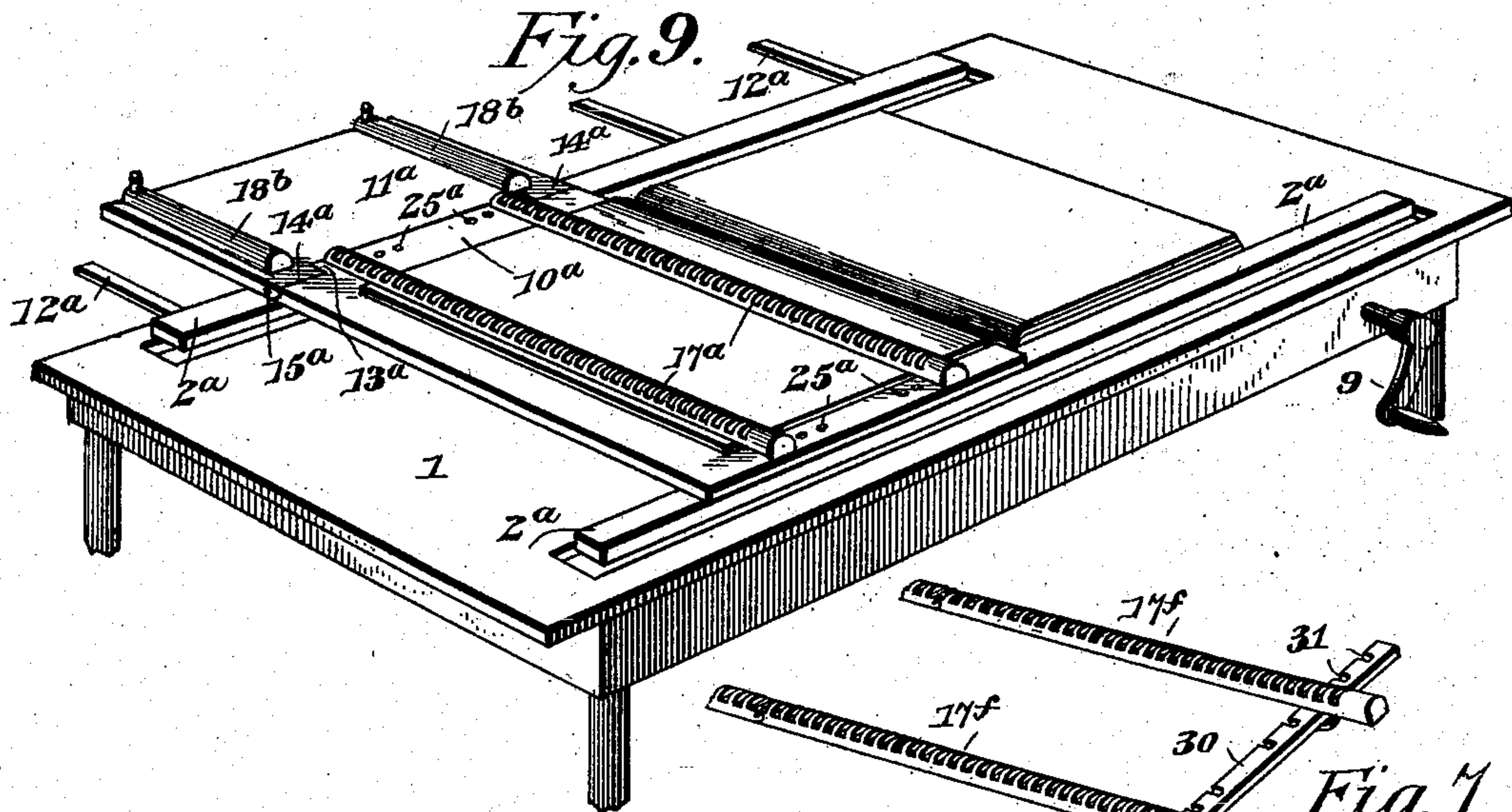
Patented Mar. 21, 1899.

H. J. HALLE.
TYPE WRITING MACHINE SUPPORT.

(Application filed June 13, 1898.)

(No Model.)

6 Sheets—Sheet 3



Witnesses

Jas. E. McClathran

[Signature]

By his Attorneys,

Hiram J. Halle Inventor

Chas. Snow & Co.

No. 621,660.

Patented Mar. 21, 1899.

H. J. HALLE.
TYPE WRITING MACHINE SUPPORT.

(Application filed June 13, 1898.)

(No Model.)

6 Sheets—Sheet 4.

Fig. 12.

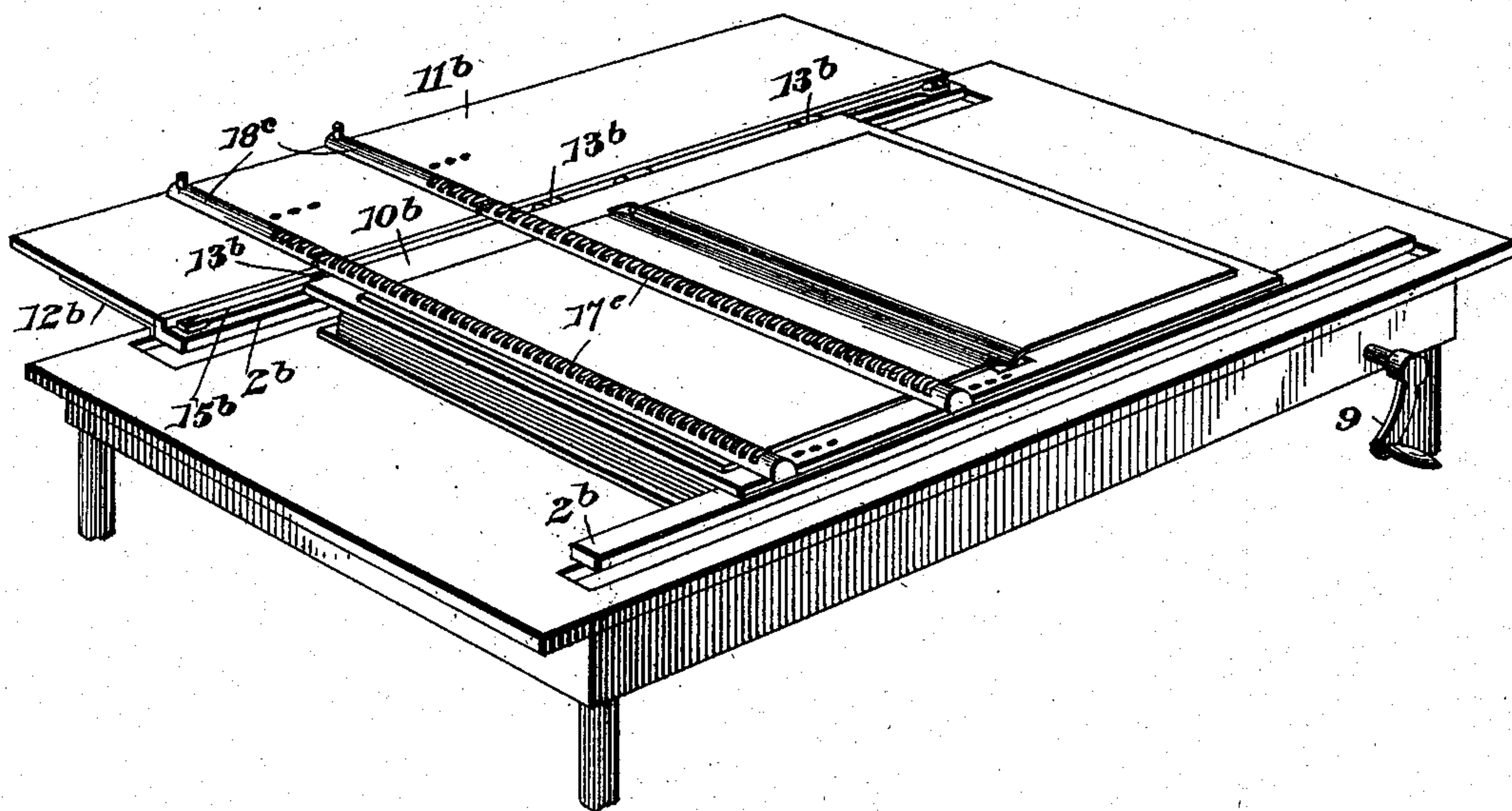
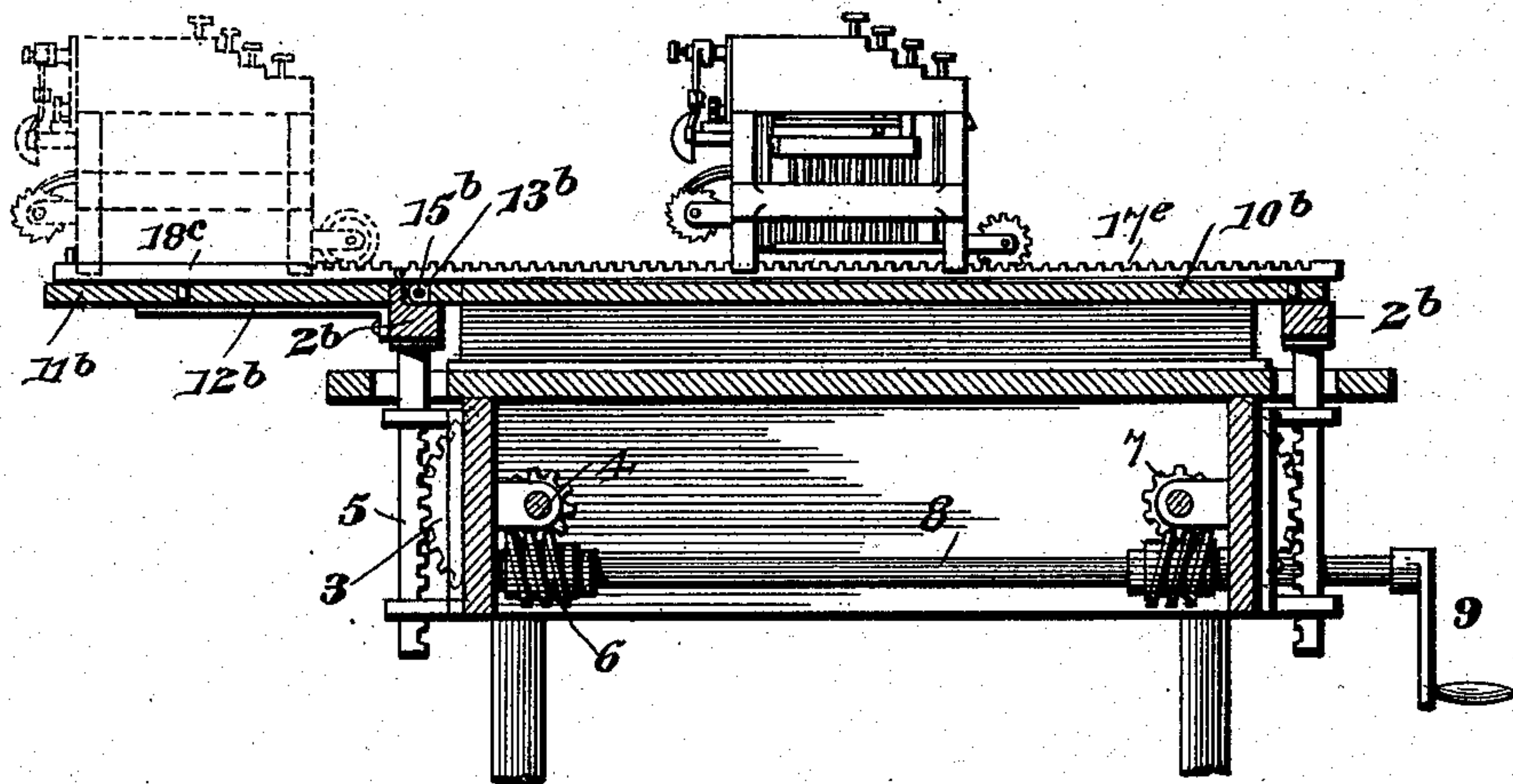


Fig. 13.



Witnesses

Jas. K. McLathram
[Signature]

Hiram J. Halle, Inventor

By *His* Attorneys,

Calhoun & Co.

No. 621,660.

Patented Mar. 21, 1899.

H. J. HALLE.
TYPE WRITING MACHINE SUPPORT.

(Application filed June 13, 1898.)

(No Model.)

6 Sheets—Sheet 5.

Fig. 14.

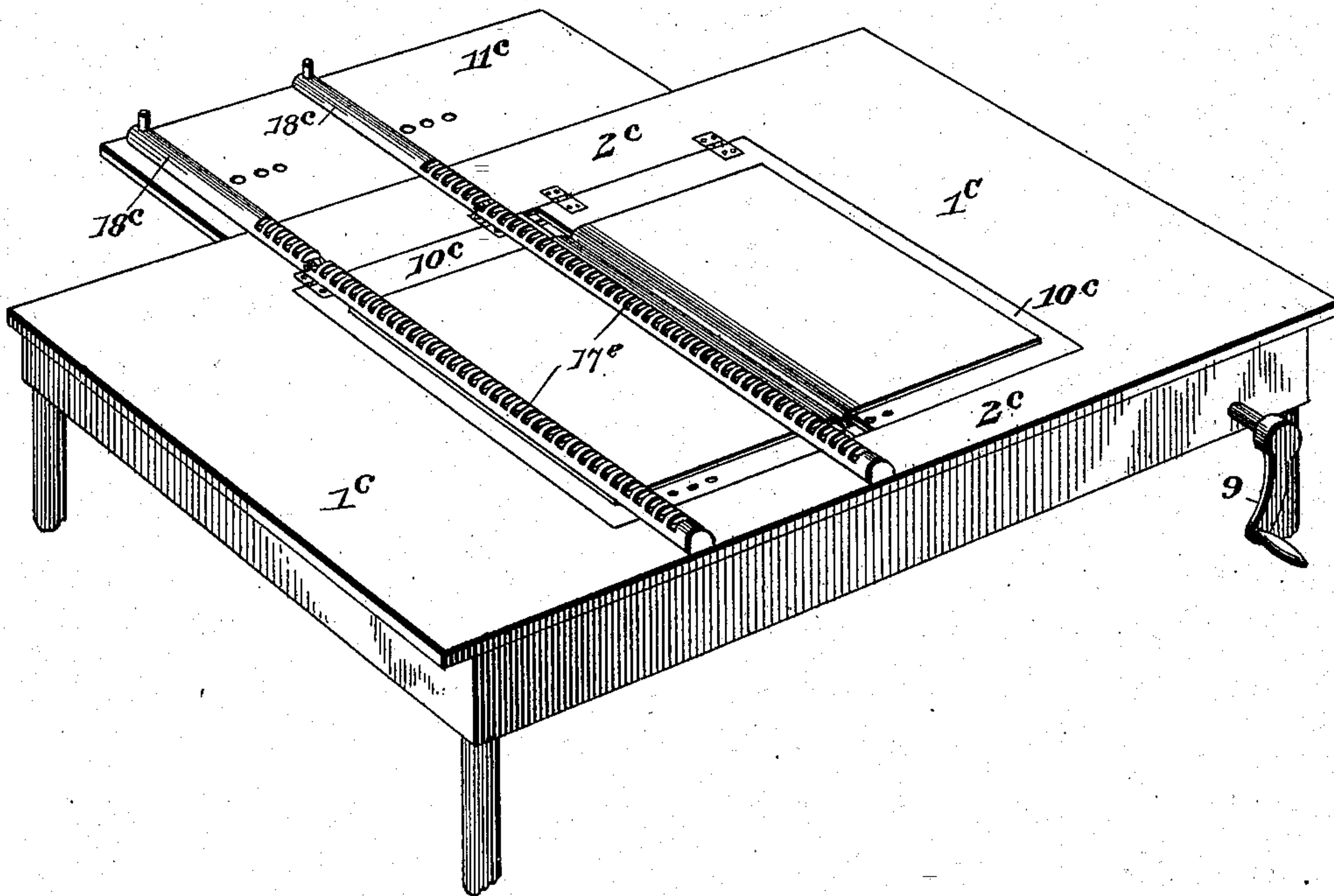
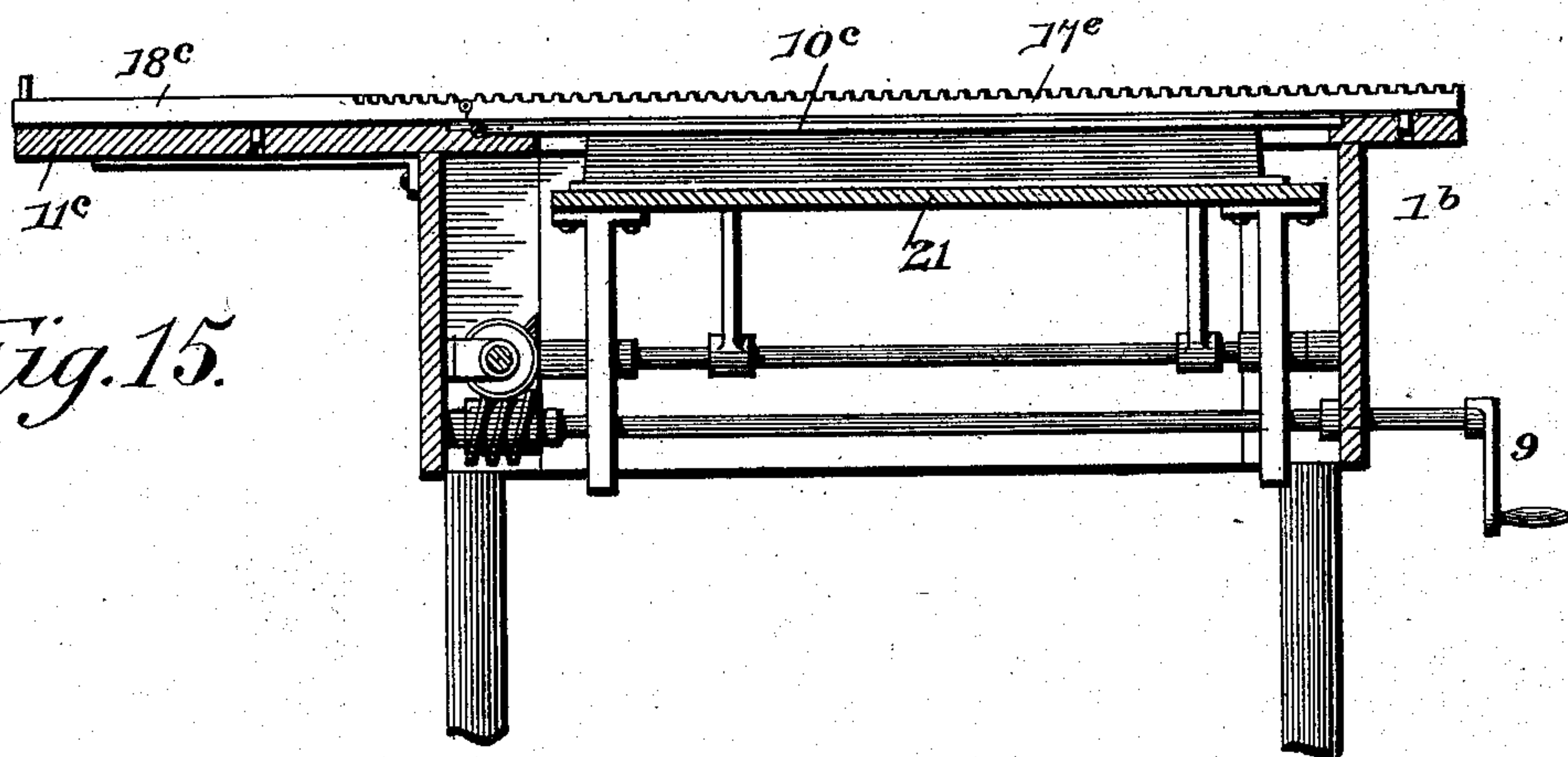


Fig. 15.



Witnesses

Jas. K. McCathran

[Signature]

Hiram J. Halle, Inventor

By *his* Attorneys,

Chas. Snow & Co.

No. 621,660.

Patented Mar. 21, 1899.

H. J. HALLE.

TYPE WRITING MACHINE SUPPORT.

(Application filed June 13, 1898.)

(No Model.)

6 Sheets—Sheet 6.

Fig. 16.

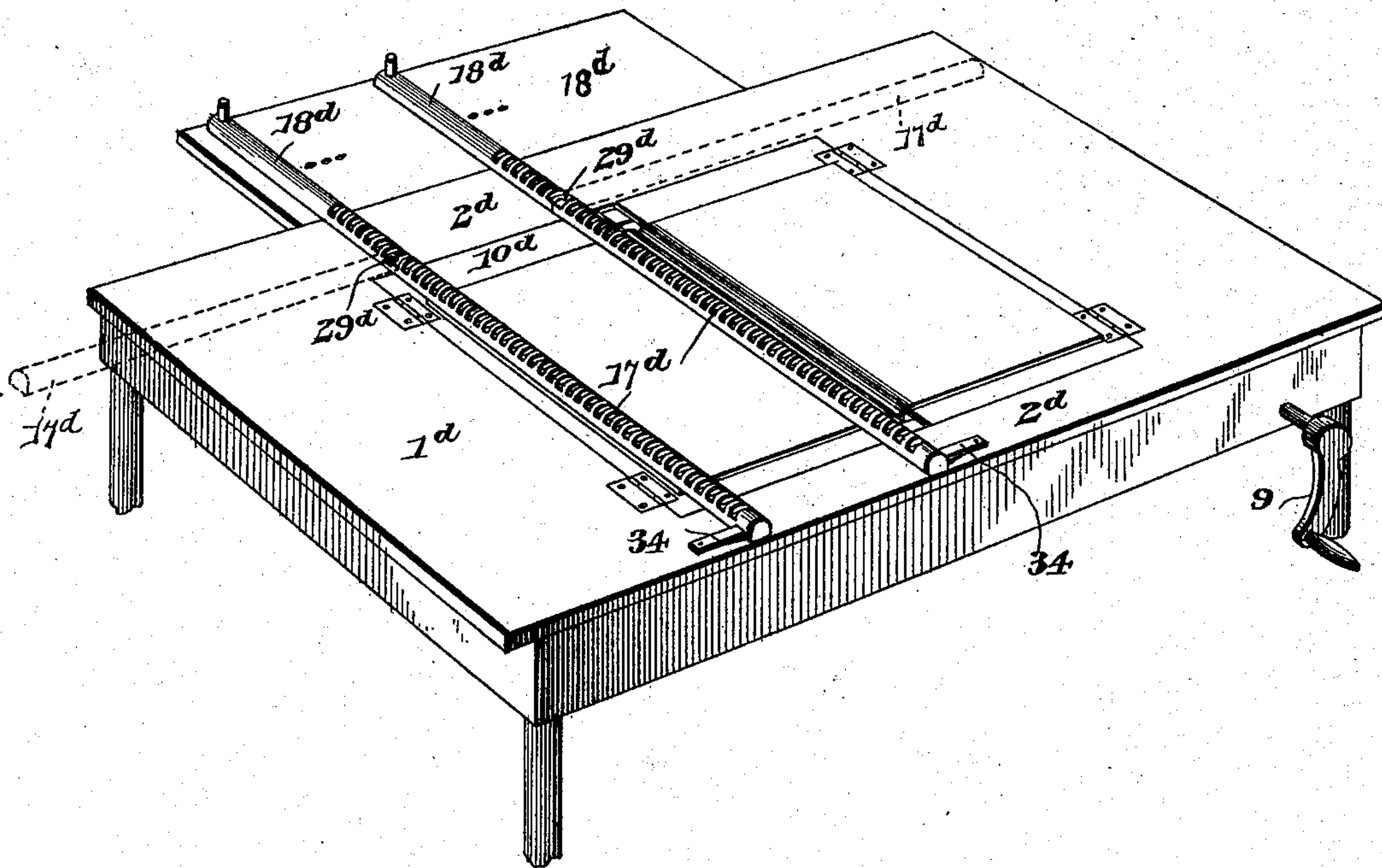


Fig. 17.

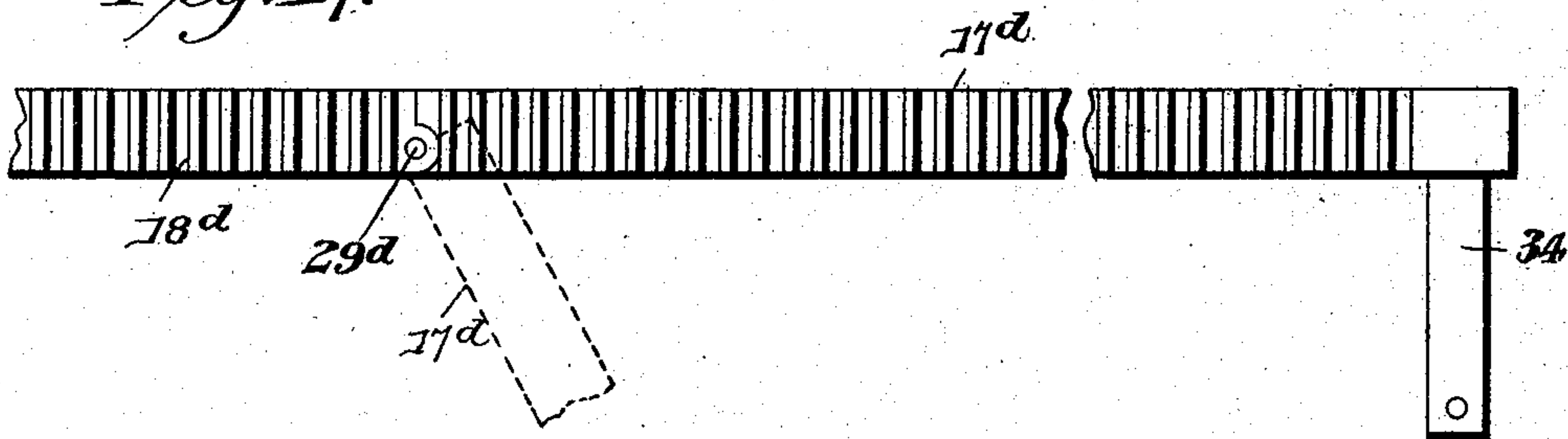
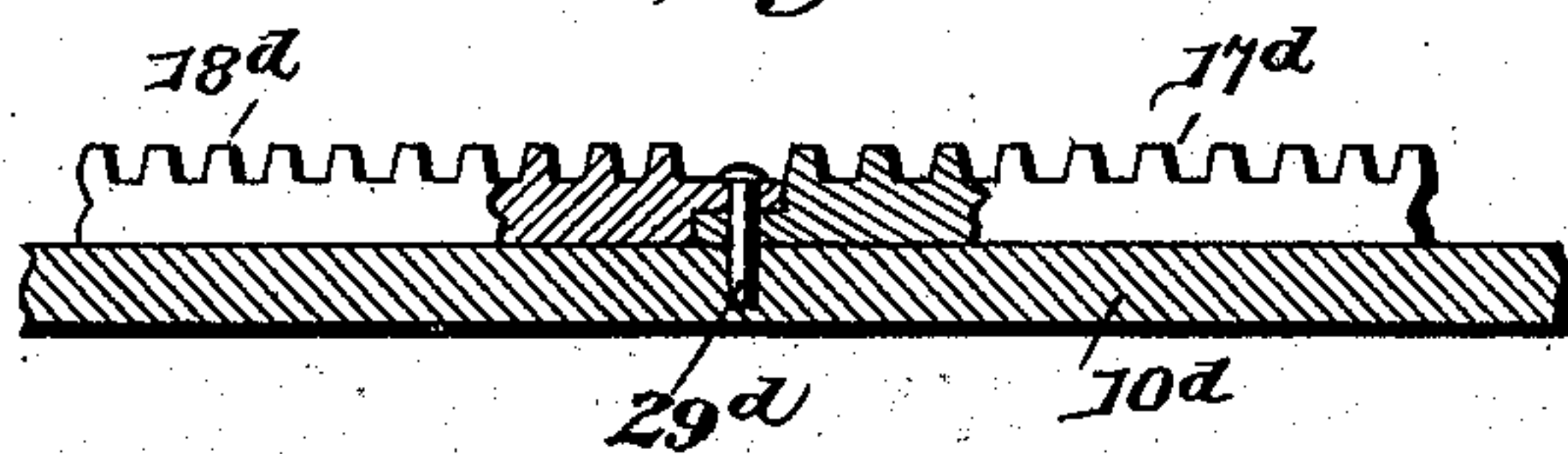


Fig. 18.



Witnesses

Jas. H. McLaughlin

[Signature]

By His Attorneys,

Hiram J. Halle, Inventor

[Signature]

UNITED STATES PATENT OFFICE.

HIRAM JOSEPH HALLE, OF CLEVELAND, OHIO.

TYPE-WRITING-MACHINE SUPPORT.

SPECIFICATION forming part of Letters Patent No. 621,660, dated March 21, 1899.

Application filed June 13, 1898. Serial No. 683,326. (No model.)

To all whom it may concern:

Be it known that I, HIRAM JOSEPH HALLE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Type-Writing-Machine Support, of which the following is a specification.

My invention relates to type-writing machines, and particularly to a support for book type-writing machines, and has for its object, primarily, to provide such a construction of support that the machine may be positioned wholly outside of or beyond the possible printing or operative field or area without raising or otherwise moving the machine except parallel with the printing-surface, as in the operation, for example, of line-spacing, such abnormal positioning of the machine being designed to expose the printing area, and thereby facilitate the adjustment of the impression-receiving object, such as a book or sheet, or to simplify the operation of turning the leaves of a book constituting the impression-receiving object.

A further object of my invention is to provide machine supporting and guiding members respectively positioned outside of or beyond and spanning the printing field or area, or that space within which the printing is accomplished, said supporting and guiding members being of analogous construction and being so related that the machine by a continuation of its line-spacing movement may be caused to pass from one member to the other.

A further object of my invention is to provide, in connection with or constituting a machine-support, rails, tracks, or guides of sectional construction having stationary or permanent and movable or displaceable elements, of which the latter span the printing field or area of the type-writing machine, while the former are located outside of or beyond said printing field or area.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a support for type-writing machines, the same being constructed in accordance with my invention. Fig. 2 is a side view of

the same, showing the base in section and indicating in full and dotted lines the operative and displaced positions of the type-writing machine upon the rails, the movable member of the support, including the platen and the movable rail elements, being shown in dotted lines in their elevated or displaced position. Fig. 2^a is a detail view of one end of a movable rail element inverted to show the retaining-pin with which it is provided. Fig. 3 is an inverted plan view of the base, showing the means for varying the vertical position of the adjustable platen and rail-supporting strips. Fig. 4 is a detail view in perspective of a portion of one of the rails or tracks having connected elements. Fig. 5 is a detail sectional view of the joint between the elements of the rail or track. Fig. 6 is a plan view of the same. Fig. 7 is a detail view in perspective of transversely-connected rail elements hinged for swinging movement. Fig. 8 is a detail section of the joint and clamp. Fig. 9 is a perspective view of a modified construction of the type-writing-machine support embodying my invention, wherein the platen is connected with an extension or temporary machine-rest by a hinge-joint, both platen and extension or rest being detachable from the base. Fig. 10 is a side view of the same, showing the base in section. Fig. 11 is a detail view in perspective of the platen and extension or rest detached. Fig. 12 is a perspective view showing another modification of my invention, wherein the platen extension or rest, which is outside of or beyond the printing area or field, is coextensive with the adjustment of the platen and is permanently fixed to the rear supporting-strip, a double platen or one capable of upholding two book-leaves being shown in this connection. Fig. 13 is a sectional view of the same, showing in full and dotted lines the operative and inoperative positions of a type-writing machine mounted upon the support. Fig. 14 is a perspective view of another modified construction of supporting devices embodying my invention, wherein the base is extended to form the rest or temporary machine-support beyond the printing area or field and in the plane of the movable platen-leaves. Fig. 15 is a vertical sectional view of the same. Fig. 16 is a detail view in perspective of another modi-

fied construction and arrangement of supporting means embodying my invention, wherein the movable rail elements have a horizontal swinging movement in contradistinction to the vertical swinging movement of the corresponding parts in the foregoing figures. Fig. 17 is a detail plan view of a portion of one of the rails. Fig. 18 is a detail sectional view of the joint between the elements of the rail shown in Fig. 17.

Similar reference characters indicate corresponding parts in all the figures of the drawings.

The base 1, Figs. 1, 2, 3, 9, and 10, which may be constructed in the form of a horizontal table-top and may, as illustrated, be provided with suitable supporting-legs, carries front and rear, preferably adjustable, supporting-strips 2, the interval between the strips being such as to receive a book positioned upon the base or a book-supporting member thereof. When adjustable, the strips are provided with operating mechanism, consisting in the construction illustrated of segment-gears 3, connected in pairs by spindles 4, which are arranged longitudinally of the base; racks, 5 depending from the strips and engaged by the segment-gears, and worms 6, meshing with worm-gears 7 on said spindles, and carried by a worm-shaft 8, provided beyond the front edge of the base and within reach of the operator with an operating-crank 9. The means for vertically adjusting the strips form no part of my present invention.

The strips in the construction illustrated (see Figs. 1 to 4 and 10) carry a platen 10, which spans the printing field or area or the interval between the strips and is coextensive with one or more leaves of a book located between the strips or with a sheet or other impression-receiving surface upon which type-impressions are to be made by means of a type-writing machine mounted to traverse the printing area, and a platen extension or temporary machine-rest 11, which is located beyond or outside of the printing field or area of the type-writing machine or outside of the space between the strips to support a type-writing machine when in an inoperative position to expose said platen, and thereby facilitate the adjustment or arrangement of an impression-receiving surface. This platen extension or machine-rest, which consists of a normally stationary leaf or plate adapted to support the type-writing machine when not in use, may be upheld by the rear supporting-strip 2 through the assistance of angle-brackets 12 or the equivalents thereof when the strips are adjustably mounted, as hereinbefore described, whereby the adjustment of the strip causes the corresponding adjustment of the platen extension or rest. The platen is movably mounted with relation to the platen extension or rest and may be hinged upon the rear strip, as indicated in the drawings, Figs. 1 and 2, by means of hinge eyes or clips 13 and 14, fitted upon a hinge rod or pin 15,

which is secured to the strip, the front edge of the platen being adapted in normal position to rest upon the front strip, as indicated. The platen is designed to support the impression-sheet or the leaf of a book which is to receive the impression, whereby in writing the printing members of the machine strike downward toward the platen as a backing.

The platen is provided with tracks to guide a type-writing machine in traversing its surface, and preferably the book-leaf or sheet which is receiving the impression is held in a flat condition upon the surface of the platen by means of rails 17, constructed to carry the frame of the type-writing machine, and one or both being of sectional construction or consisting of elements of which a main or movable element is supported by and spans the surface of the platen, while a rail extension or stationary element 18 is supported by the platen extension or rest 11 or other analogous means for maintaining the stationary or auxiliary rail element in position to receive the type-writing machine when outside the printing area. Also these rail elements may be hingedly connected, as shown in Figs. 4 to 7 and 12 to 18, the length of the auxiliary or extension rail elements in either form being sufficient to support a type-writing machine when the latter is disposed beyond the printing field and is at rest. Obviously the length of the main rail elements depends upon the width of the printing field and may be varied to suit the functions of the machine which is to be used in connection therewith.

Various means may be adopted to maintain the platen and the extension or rest in the desired relative positions and in the required positions with relation to the supporting-strips. For instance, in Figs. 1 and 2, as above indicated, the platen and extension or rest may be provided, respectively, with eyes 13 and 14, fitted to slide upon a hinge-rod 15, the eyes of one being arranged between those of the other, whereby the adjustment of the platen parallel with the hinge-rod causes the corresponding adjustment of the extension or rest, the latter being provided with means, such as depending ears 19, (forming parts of the above-described brackets 12,) which bear against the rear side of the rear strip 2 to maintain the rest in a horizontal position or in a common plane with the platen when the latter is in its operative position. In the construction illustrated the ears 19 consist of the downturned portions of the angle-brackets 12, hereinbefore mentioned, and in this construction (shown in Figs. 1 and 2) said brackets may be secured to the under side of the rest 11. In this particular of the attachment of the brackets to the under side of the rest the construction illustrated in Figs. 1 and 2 differs from that illustrated in Figs. 9 and 10, wherein the brackets 12^a are secured to the rear side of the strip 2^a and are not adjustable with the rest. On the other hand, in said construction shown in Figs. 9 and 10 the platen and

rest 10^a and 11^a are connected by interlocking eyes 13^a and 14^a and an engaging hinge-rod 15^a, the latter being separate from the strip 2^a, and hence providing for the arrangement of the platen at any desired point or the entire removal thereof with the rest from the base, as indicated in Fig. 11. In this construction, (shown in Figs. 9 and 10,) however, I have found it desirable (to prevent rearward displacement of the platen) to provide the brackets 12^a with upstanding studs or ears 20, which engage suitable sockets or openings in the rest 11^a. It will be seen that in Figs. 1, 2, 9, and 10 the rests 11 and 11^a are constructed as movable extensions of the platen, and particularly in Figs. 9 and 10 the rest constitutes a platen extension which is removable with the platen from the supporting-strips. Again, in Figs. 12 and 13 the platen 10^b, which is supported by the front and rear strips 2^b, is supplemented to form a stationary or temporary support for the type-writing machine by a stationary rest 11^b, which is permanently secured to the rear strip 2^b by brackets 12^b. In this construction the rest 11^b, which is arranged in a common plane with the platen 10^b, may be made co-equal in length with said strip, and hence with the path of the platen, which by means of eyes 13^b is mounted for adjustment upon a hinge-rod 15^b, carried by said rear strip 2^b. Moreover, in the construction illustrated in Figs. 14 and 15 the base 1^c is constructed with the front and rear supporting-strips 2^c flush therewith and stationary, and the book is adapted to be supported below the plane thereof by a vertically-adjustable platform or book-support 21, coextensive with the printing field or area and provided with adjusting devices analogous to those hereinbefore described as designed for securing the adjustment of the supporting-strips, and hence requiring no further detailed description. In this form of the apparatus a plurality of platen-leaves 10^c may be hinged to the rear strip 2^c and flush with the upper surface thereof, and hence the table-top or base, and the latter is provided with an extension 11^c, forming a temporary machine support or rest which is adapted to perform the functions of the platen extensions or rests 11, 11^a, and 11^b, as hereinbefore described in connection with other forms of my invention, said rest 11^c also being flush or in a common plane with the platen 10^c. Also in Fig. 16 I have shown a base 1^d, front and rear supporting-strips 2^d, and a platen 10^d, which, however, in contradistinction to those forms of my invention which are described in connection with the foregoing figures, is hinged at its side edge to fold laterally instead of folding from the operator, for a reason which will be understood as the nature of my invention is more fully disclosed. In this form of my invention the temporary machine support or rest 11^d is also permanently secured in the plane of the platen 10^d.

In connection with the construction illus-

trated in Figs. 1 and 2 it will be seen that I have shown tracks arranged in parallelism upon both leaves or members of the platen and consisting of rails, of which those elements which are arranged upon the platen 10 may be disposed, as shown, to allow a book-leaf or other impression-sheet to be arranged thereunder or between the same and the upper surface of the platen to receive the impression of the printing characters. These rail elements, while arranged in parallelism in order to allow the machine traversing the same to be pushed from those upon the platen to those upon the temporary machine support or rest without raising or lowering the machine or otherwise moving it out of its straight path, need not be in alinement, and for reasons hereinafter made clear the rail elements which are arranged upon the platen may be movable or adjustable laterally with relation to each other to vary the interval therebetween to suit lines of writing (at right angles to which said rails are arranged) of different lengths, while those rail elements which are supported by the machine-rest may be fixed or permanently attached to the said rest, or at least may be incapable of relative adjustment upon the same. In the construction illustrated in Figs. 1 and 2 the main and auxiliary rail elements 17 and 18 are shown in parallelism, but out of alinement, the interval between the auxiliary rail elements being such as to correspond with the widest or most remote setting of the main rail elements, and hence being designed to support the machine when pushed rearwardly thereon at any relative adjustment of the main rail elements. This obviously avoids the necessity of adjusting the auxiliary rail elements to suit the adjustment of the main rail elements. The auxiliary rail elements at their rear ends are provided with stops 22 to limit the rearward movement of a machine traversing the same to prevent displacement, and both the main and auxiliary rail elements may be provided with depending pins 23 and 24 to engage sockets 25 and 26 formed in the machine-rest. It will be understood, however, that other means may be employed for maintaining the rail elements in the desired positions upon the platen and rest, or with sufficiently heavy rails attaching devices may be dispensed with entirely.

The machine-support which forms the subject-matter of this invention is designed for supporting and guiding type-writing machines of different constructions, which may be required to occupy positions alternately within and outside of or beyond the printing area for the reasons fully explained; but said support is adapted particularly for use in connection with type-writing machines of the type and general construction shown and described in the patents of R. J. Fisher, as follows: No. 569,626, dated October 20, 1896; No. 569,627, dated October 20, 1896; No. 569,491, dated October 13, 1896; No. 572,535, dated De-

cember 8, 1896; No. 573,868, dated December
 29, 1896; No. 578,554, dated March 9, 1897; No.
 580,855, dated April 20, 1897, and No. 569,625,
 dated October 20, 1896, and in the copend-
 5 ing applications of the same, as follows: Se-
 rial No. 660,272, filed November 30, 1897, and
 Serial No. 671,147, filed February 21, 1898.
 These patents and applications or some of
 them show and describe line-spacing tracks,
 10 guides, or rails similar in general construc-
 tion to the rails shown and described herein
 and adapted to be traversed by the machine-
 frame when moved in a direction transverse
 to the lines of writing for line-spacing pur-
 15 poses. To receive and fit the tracks, the ma-
 chine-frame of said patents and applications
 of Fisher are provided at the bottom with
 front and rear alined seats; but to allow va-
 20 riation of the interval between the tracks a
 plurality of seats spaced laterally are used.
 Therefore when, as herein described, the front
 or main track elements are spaced at one in-
 terval, while the rear or auxiliary track ele-
 25 ments are spaced at a different interval, and
 hence are alined with other seats of the ma-
 chine-frame from those occupied by the main
 track elements, the movement of the machine
 from the main to the auxiliary track elements
 30 may be accomplished with the same facility
 as though the track elements of the two sup-
 port members were in alinement. The only
 difference is that when the frame is pushed
 back different track-seats engage the auxil-
 35 iary track elements from those which have
 been in engagement with the main track ele-
 ments instead of the same track-seats. Thus,
 provided the track elements of both support
 members are in parallelism, the operation is
 40 the same whether the alinement of the coöper-
 ating elements is preserved or not.

In the construction illustrated in Figs. 9
 to 11 a corresponding separate and non-alined
 arrangement of rail elements 17^a and 18^b is
 disclosed, the same being provided with cor-
 45 responding means of attachment to the platen
 and rest, said means being such as to provide
 for the displacement or detachment of the
 rail elements and consisting of pins on the
 rail elements fitted in openings or sockets 25^a
 50 and 26^a in the platen and rest. The detach-
 able form of platen illustrated in said Figs.
 9 to 11 is desirable in that it is adapted to be
 used in connection with other than the spe-
 55 cial form of supporting means or strips dis-
 closed in these figures, and, in fact, constitutes
 the simplest form of type-writing-machine
 support having main and auxiliary (or mov-
 able and normally stationary) members, which
 are arranged, respectively, within and out-
 60 side of or beyond the printing field or area
 to support the type-writing machine respec-
 tively in operation and at rest.

It will be understood from the foregoing de-
 scription that the forms of rails or tracks illus-
 65 trated in Figs. 1, 2, 9, and 10 are adapted
 to be arranged in alinement when the space
 required between the main rail elements is

equal to that which is provided between the
 auxiliary rail elements. Therefore in opera-
 tion when it is desired to change the book by 70
 turning one or more leaves or otherwise to ar-
 range or secure the required surface or object
 to receive the impression of the printing char-
 acters the type-writing machine, which is in-
 dicated in dotted lines in Fig. 2, should be 75
 shifted beyond the printing area to a position
 upon the stationary or auxiliary support mem-
 ber, as upon the auxiliary rail elements, where
 it is supported by the rest. The front ends
 of the rails or the movable elements thereof 80
 may then be elevated to adjust the sheet or
 page upon the platen 10, or both rails and
 platen may be elevated to allow the change of
 position of the book or the turning of the
 leaves or other adjustment of the impression- 85
 receiving object. The construction described
 provides for shifting the impression-receiving
 object without displacing the machine from
 the support or moving the same out of its nor-
 mal path. It is only necessary to reverse the 90
 line-spacing movement of the machine or the
 movement transverse to the lines of writing
 to dispose it beyond or outside of the printing
 area, whereupon those elements of the rails
 which span the printing area and the platen, 95
 or either of them, and which serve as the
 means of support for the machine when the
 latter is in operation may be moved or dis-
 placed, preferably without detachment, to
 expose the printing area and give free access 100
 to the impression-receiving surface. As here-
 inbefore indicated, however, it is not indis-
 pensable in carrying out my invention that
 the rail elements shall be separate and non-
 105 alined. On the other hand, I have found it
 desirable under certain circumstances to have
 the rail elements constructed for permanent
 alinement, whereby the adjustment of the
 main or operative elements thereof is accom-
 110 panied by a corresponding adjustment of the
 auxiliary, or, as I have hereinbefore termed
 this feature, "stationary" elements. For in-
 stance, in Figs. 4 to 6, inclusive, the main and
 auxiliary rail elements 17^e and 18^e are hingedly
 115 connected by a pivot-pin 27, the auxiliary or
 stationary rail element having a joint stiffen-
 ing or strengthening tongue 28, which is pref-
 erably flush with the under side of said rail
 element and is adapted to be countersunk by
 fitting normally in a cavity 29 in the under 120
 side of the member 17^e. This hinge connec-
 tion between the rail elements is shown also
 in Figs. 14 to 18, inclusive; but in Figs. 16 to
 18 the elements 17^d and 18^d are connected
 pivotally by a vertical pin 29^d, whereby the 125
 front or movable rail elements are adapted to
 swing laterally in a horizontal plane, as indi-
 cated by the dotted lines in Figs. 16 and 17,
 to expose the printing area or field. Also
 in Figs. 7 and 8 I have shown, in connec- 130
 tion with the hinged movable rail elements
 17^f, a transverse connecting-bar 30, having
 notches 31 to receive pins 32, depending from
 said rail elements near their front ends, said

pins preferably consisting of set-screws having heads 33 and being threaded into sockets in the under sides of the rail elements to clamp the connecting-bar 30 and the rail elements at their points of intersection. It will be seen that the desired notches 31 of the connecting-bar may be engaged with the pins 32 to hold the rail elements at the desired relative adjustment at their front ends and at the same time enable the operator to lift both movable rail elements in one operation, as by the thumb and forefinger of one hand, to leave the other hand free to move the platen or to properly position the leaf or impression-sheet upon the upper surface of the platen preparatory to again lowering the rail elements. When the connecting-bar 30 is employed, the movable rail elements should extend slightly beyond the front edge of the platen, whereby the bar occupies a position in the plane of the platen.

In the construction illustrated in Fig. 16 the movable rail elements 17^a may be held in their normal positions by means of spring or yielding stops 34 or the equivalents thereof, and it will be seen that the advantage in swinging the said rail elements laterally is to suit the lateral swinging movement of the platen 10^a.

Finally, it will be seen that the essential feature of my invention resides in the construction of a type-writing-machine support having two members, of which one is permanently located outside of or beyond the printing field or area, while the other is normally located to span the printing field or area, but is movable into and out of said printing field or area to provide for the arrangement of the leaf or sheet which is to receive the impression, the first-named member being adapted to receive and uphold the type-writing machine temporarily when the latter is at rest, while the last-named or main support member is designed to normally uphold the machine when in operation.

The term "support members" as I have used it in this description applies to the means for upholding and guiding a type-writing machine while in operation and at rest or while traversing the printing area or field and when located outside of or beyond said area or field; and said term in the sense in which it is used herein applies broadly to either the platen and temporary machine-rest or the tracks or rails (with their stationary and movable elements) or to both the platen and rest and the tracks or rails, the "stationary support member" being that member which is located permanently outside of or beyond the printing area and whether consisting of the rest or the auxiliary rail elements, or both, and the "movable support member" being that member which is located within and spans the printing area or field (the same being displaceable to expose said area or field for the adjustment of the impression-receiving surface or object) and whether consisting of the

platen or the main rail elements, or both. Furthermore, it will be seen that the platen is not an indispensable element of the mechanism described, for it has been demonstrated that with suitable supporting devices, such as rails, spanning the printing field or area to be traversed by the machine printing may be done directly upon the surface of a book-leaf which is unsupported throughout its area by a platen; but it is obvious that the result under such conditions is not as satisfactory as when a firm backing is employed for the leaf or sheet which is receiving the impression, owing to the yielding quality of the book-leaves, particularly when they are in bulk or when there is a considerable depth of leaves. In the same way it will be understood from the foregoing description that the rails, as shown and described, are not wholly indispensable, provided some means are employed to guide the type-writing machine in traversing the printing field or area and provided that member which serves to support and guide the machine while traversing the printing field or area is movable when relieved of the machine to expose the printing field or area, said machine passing to a point beyond the printing field or area to release said movable supporting member; but the result attained by the use of the rails, and particularly when those rails are loose or are movable independently of the supporting-surface, such as the platen described in connection with my apparatus, is far more satisfactory than when those members are omitted, for the reason that the rail elements which span the printing field or area serve to maintain the leaf or impression-sheet in its proper position upon the supporting-surface or platen, and thus insure a sharp impression of the type-faces. Moreover, in the drawings I have shown (see Figs. 1, 9, and 11) a platen which is adapted to support only one leaf or sheet and which hence may be termed a "single" platen; but the features of construction which have been shown and described are equally applicable to a double platen or one which is capable of supporting the opposite pages of a book simultaneously. (See Figs. 12 and 16.) It will be understood, moreover, that various other changes in the form, proportion, and minor details of construction than have been specifically shown and described may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having described my invention, what I claim is—

1. A support for type-writing machines, having members arranged respectively outside of and within the printing area, and adapted to be traversed by the machine, the member within the printing area being displaceable from its normal position to permit adjustment of the impression-receiving object, substantially as specified.

2. A support for type-writing machines, having members arranged respectively out-

side of and within the printing area or field, and adapted, respectively, to support the machine when the latter is at rest and is in operation, and one of said members being movable independently of the other to permit the adjustment of the impression-receiving object, substantially as specified.

3. A support for type-writing machines having stationary and movable members located respectively outside of and within the printing area of the machine, and adapted, respectively, to support the machine when the latter is at rest and is in operation, the movable support member being adapted to be displaced to permit adjustment of the impression-receiving object, substantially as specified.

4. A support for type-writing machines having members normally located respectively outside of and within the printing area of the machine, and adapted, respectively, to support the machine when the latter is at rest and is in operation, that member which is normally located within the printing area of the machine being movable out of and into said area to permit adjustment of the impression-receiving object, substantially as specified.

5. A support for type-writing machines having members of which one is permanently located outside of the printing area of the machine, and the other is normally located within the printing area of the machine, to support the machine when in operation, said second-named member being movable to a point outside of the printing area, substantially as specified.

6. A support for type-writing machines having stationary and movable members arranged respectively outside of and within the printing area of the machine, said movable member being hinged for vertical displacement, to give access to the impression-receiving surface, the member which is outside of the printing area being adapted to receive the machine to release the movable member, substantially as specified.

7. A support for type-writing machines having machine-traversed rails, each of which spans the printing area and extends to a point outside of or beyond said printing area, a portion of each rail being displaceable to give access to the printing area, to facilitate the adjustment of the impression-receiving object, substantially as specified.

8. A support for type-writing machines having machine-traversed rails, for supporting the machine while traversing the printing area, and also while located outside of or beyond the printing area, one of said rails having a displaceable element to give access to the printing area to facilitate the adjustment of the impression-receiving object, substantially as specified.

9. A support for type-writing machines having machine-traversed rails, each comprising elements located respectively outside of and spanning the printing area, the element

which spans the printing area being displaceable to give access to the printing area, for the adjustment of an impression-receiving object, substantially as specified.

10. A support for type-writing machines, having machine-traversed rails of sectional construction, each comprising a fixed element and a movable element, of which the former is arranged outside of and the latter spans, the printing area, the movable elements of the rails being displaceable to permit adjustment of an impression-receiving object, substantially as specified.

11. A support for type-writing machines having sectional rails comprising aligned stationary and movable members, of which the former are adapted to support a type-writing machine when the latter is at rest, to allow the displacement of the movable rail members to expose the impression-receiving surface, substantially as specified.

12. A support for type-writing machines having rails for supporting a machine while traversing the printing area, and also when located outside of or beyond the printing area, one of said rails being of sectional construction, and comprising hingedly-connected, stationary and movable elements, of which the latter is adapted to be displaced, to give access to the printing area when the former is occupied by the machine, substantially as specified.

13. A support for type-writing machines having sectional rails, each comprising hingedly-connected stationary and movable elements, of which the former are adapted to receive the machine when the latter is at rest, to allow the swinging movement of the movable rail elements, substantially as specified.

14. A support for type-writing machines having members located respectively outside of and within the printing area, one of said members having tracks for guiding a type-writing machine in traversing the same, that member which is located within the printing area constituting a platen, substantially as specified.

15. A support for type-writing machines having members located respectively outside of and within the printing area, that member which is within the printing area being movable and constituting a platen, and having guides for a type-writing machine in traversing the same, substantially as specified.

16. A support for type-writing machines having members located respectively outside of and within the printing area, and provided with tracks arranged in parallelism, that member which is within the printing area constituting a platen, substantially as specified.

17. A support for type-writing machines having stationary and movable members located respectively outside of and within the printing area, and each having rails arranged in parallelism, and that member which is within the printing area constituting a platen

for supporting an impression-receiving object, substantially as specified.

18. A support for type-writing machines having stationary and movable members located respectively outside of and within the printing area, that member which is within the printing area constituting a platen, in combination with superposed rails, each having stationary and movable elements respectively supported by said stationary and movable members, substantially as specified.

19. A support for type-writing machines having a platen, and a rest located beyond the area of the platen, for temporarily supporting the machine when at rest, said platen being movable independently of the rest to facilitate the adjustment of the impression-receiving object, substantially as specified.

20. A support for type-writing machines having a platen, and a rest, located beyond the area of the platen, said platen and rest being adapted to receive the machine alternately by linear movement thereof in opposite directions, and the platen being movable independently of the rest to give access to the impression-receiving object, substantially as specified.

21. A support for type-writing machines having a platen, and a rest, forming a temporary machine-support, arranged in a common plane with the platen, the platen being movable independently of the rest, to facilitate adjustment of the impression-receiving object, substantially as specified.

22. A platen for type-writing machines having an extension forming a temporary machine-support, said platen, when relieved of the weight of the machine, being movable independently of its extension to give access to the impression-receiving object, substantially as specified.

23. A platen for type-writing machines having an extension forming a temporary machine-support, one of which is movable independently of the other and is provided with tracks for guiding a type-writing machine in traversing the same, substantially as specified.

24. A platen for type-writing machines provided with an extension to form a temporary machine-support, said platen and extension being provided with tracks arranged in parallelism, substantially as specified.

25. A platen for type-writing machines having an extension forming a temporary machine-support, said platen and extension being provided with tracks arranged in parallelism, and the platen being movable independently of the machine-support to expose the printing area, substantially as specified.

26. A platen for type-writing machines having an extension adapted to form a temporary machine-support, the platen being movable independently of the extension to expose the printing area, and said platen and extension being provided with track elements arranged in alinement, substantially as specified.

27. A platen for type-writing machines hav-

ing an extension to form a temporary machine-support, independently of which said platen is movable, in combination with rails, each consisting of elements carried respectively by said platen and extension, substantially as specified.

28. A platen for type-writing machines having an extension, independently of which said platen is movable, in combination with rails, one of which consists of hingedly-connected elements carried respectively by the platen and extension, substantially as specified.

29. A platen for type-writing machines having an extension adapted to form a temporary machine-support, independently of which the platen is movable to expose the printing area, in combination with rails, each consisting of hingedly-connected elements arranged in alinement and carried respectively by said platen and extension, substantially as specified.

30. A support for type-writing machines having members comprising a platen located within the printing area, and a platen extension located outside of or beyond the printing area, in combination with sectional rails, each comprising elements respectively supported by said members, one of said rail elements, and the member by which it is supported, being hinged for swinging movement to expose the printing area, substantially as specified.

31. A support for type-writing machines having members located respectively outside of and within the printing area or field, that member which supports the machine when within the printing area consisting of a platen to support an impression-receiving leaf or sheet, substantially as specified.

32. A support for type-writing machines having members located respectively outside of and within the printing area or field, that member which supports the machine when within the printing area consisting of a platen to support an impression-receiving leaf or sheet, and being mounted for swinging movement, substantially as specified.

33. A support for type-writing machines having members located respectively outside of and within the printing area or field, that member which is located within the printing area consisting of a platen to support an impression-receiving leaf or sheet, and being provided with tracks for guiding a type-writing machine in traversing the same, substantially as specified.

34. A support for type-writing machines having members located respectively outside of and within the printing area or field, that member which is located within the printing area consisting of a platen to support an impression-receiving leaf or sheet, in combination with parallel rail elements mounted upon the platen, substantially as specified.

35. A support for type-writing machines having members located respectively outside of and within the printing area or field, that

member which is located within the printing area consisting of a platen to support an impression-receiving leaf or sheet, in combination with parallel rail elements mounted upon the platen, one of said rail elements being mounted for adjustment independently of the other, substantially as specified.

36. A support for type-writing machines having members located respectively outside of and within the printing area or field, that member which is located within the printing area consisting of a platen to support an impression-receiving leaf or sheet, and said platen being provided with parallel machine-guiding tracks, of which one consists of a rail element adjustable laterally toward and from the other, substantially as specified.

37. A support for type-writing machines having members located respectively outside of and within the printing area or field of the machine, that member which is located within the printing area consisting of a platen having parallel tracks, and that member which is located outside of the printing area having parallel rail elements, substantially as specified.

38. A support for type-writing machines having members located respectively outside of and within the printing area or field of the machine, that member which is located within the printing area consisting of a platen having parallel tracks, and that member which is located outside of the printing area having parallel rail elements arranged in alinement with the tracks of the other member, substantially as specified.

39. A support for type-writing machines having members located respectively outside of and within the printing area, that member which is located within the printing area consisting of a platen, in combination with sectional rails, each comprising elements respectively supported by said members, the platen and platen-supported rail elements being mounted for swinging movement by means of hinge-joints arranged in proximate coincidence, substantially as specified.

40. A support for type-writing machines having a platen and an extension thereof located respectively within and outside of the printing area and connected by a common hinge-pin, substantially as specified.

41. A support for type-writing machines having a platen and an extension located respectively within and outside of the printing area and connected by a common hinge-pin of a length greater than the width of the platen members to allow movement of the latter parallel with said hinge-pin, substantially as specified.

42. A support for type-writing machines having members consisting of a platen and an extension located respectively within and outside of the printing area, that member which is located within the printing area being mounted for adjustment parallel with the lines of writing, substantially as specified.

43. A support for type-writing machines having a platen and an extension located respectively within and outside of the printing area, both being mounted for adjustment parallel with the lines of writing, substantially as specified.

44. A support for type-writing machines having alined members located respectively outside of and within the printing area, and mounted for simultaneous adjustment parallel with the lines of writing, substantially as specified.

45. A support for type-writing machines having pivotal members located respectively outside of and within the printing area, and mounted for adjustment parallel with the lines of writing of the type-writing machine, substantially as specified.

46. A support for type-writing machines having pivotal members arranged in alinement respectively outside of and within the printing area, and mounted for adjustment parallel with the lines of writing of the type-writing machine, substantially as specified.

47. A support for type-writing machines having members located respectively outside of and within the printing area, and mounted upon a common hinge-pin for adjustment parallel with the lines of writing of the type-writing machine, substantially as specified.

48. A support for type-writing machines having members located respectively outside of and within the printing area, and a common hinge-pin arranged parallel with the lines of writing of the type-writing machine, said members having eyes mounted upon said hinge-pin, substantially as specified.

49. A support for type-writing machines having members located respectively outside of and within the printing area, and a common hinge-pin arranged parallel with the lines of writing of the type-writing machine, said members having interlocking eyes mounted upon said hinge-pin, substantially as specified.

50. A support for type-writing machines having a supporting-strip arranged at one side of the printing area, and sectional means, adapted to be traversed by the type-writing machine, having members mounted upon, and extending respectively in opposite directions from the vertical plane of, said strip, substantially as specified.

51. A support for type-writing machines having spaced supporting-strips arranged at opposite sides of the printing area, and sectional means, adapted to be traversed by the type-writing machine, upheld by said strips, and having members located respectively outside of, and spanning, the interval between the strips, substantially as specified.

52. A support for type-writing machines having a base, spaced supporting-strips mounted for adjustment perpendicular to the plane of the base, means for securing said strips at the desired adjustment, and sectional means, adapted to be traversed by the type-

writing machine, upheld by said strips, and having members located respectively outside of, and spanning, the interval between the strips, substantially as specified.

53. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area and mounted for adjustment perpendicular to the plane of the base, means for securing said strips at the desired adjustment, and machine-traversed members, of which one is carried by one of the strips, and the other is terminally supported by both strips and spans the interval therebetween, substantially as specified.

54. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area and mounted for adjustment perpendicular to the plane of the base, means for securing said strips at the desired adjustment, and machine-traversed members of which one is supported by and extends rearwardly from one of the strips, and the other is hingedly mounted upon the strip which carries the first-named member, and is upheld at its free end by the other strip, to span the interval between the strips, substantially as specified.

55. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area and mounted for adjustment perpendicular to the plane of the base, means for securing said strips at the desired adjustment, a machine-rest and a platen mounted upon one of said strips and located respectively outside of, and spanning the interval between, the strips, and rails having elements supported respectively by the rest and platen, for adjustment therewith, substantially as specified.

56. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area, a hinge-pin carried by one of the strips, and a machine-rest and platen mounted upon said hinge-pin, and located respectively outside of and within the area between the strips, substantially as specified.

57. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area, a hinge-pin carried by one of the strips, and a machine-rest and platen mounted upon said hinge-pin in a common plane and located respectively outside of and within the area between the strips, substantially as specified.

58. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area, a machine-rest and platen supported by said strips and located respectively outside of and within the area between the same, and brackets extending rearwardly from one of said supporting-strips under the machine-rest, substantially as specified.

59. A support for type-writing machines having a base, supporting-strips arranged at

opposite sides of the printing area, a platen and platen extension supported by said strips and located respectively within and outside of the area between the same, and brackets extending rearwardly from one of said supporting-strips under the platen extension, substantially as specified.

60. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area, a hinge-pin carried by one of the strips, a platen and a platen extension mounted upon said hinge-pin and located respectively within and outside of the area between the strips, and brackets extending rearwardly under the platen extension from that strip which carries the hinge-pin, substantially as specified.

61. A support for type-writing machines having a base, supporting-strips arranged at opposite sides of the printing area, a hinge-pin carried by one of the strips, a platen and a platen extension mounted upon said hinge-pin and located respectively within and outside of the area between the strips, and a stop-ear carried by the platen extension for contact with the adjacent strip to hold said platen extension in its operative position, substantially as specified.

62. A support for type-writing machines having a base, an elevated strip, and a support member mounted upon said strip for pivotal movement in a vertical plane, and a stop-ear carried by said support member for contact with the strip to maintain the support member in its operative position, substantially as specified.

63. A support for type-writing machines having a base, an elevated strip, a support member hingedly mounted upon said strip outside of the printing area of the type-writing machine, and having means for limiting the downward-swinging movement thereof to maintain it in its operative position, and means for guiding the type-writing machine while traversing the printing area, substantially as specified.

64. A support for type-writing machines having a base, an elevated support member located outside of the printing area to receive the machine when at rest, and means for guiding the machine while traversing the printing area, said means being displaceable, when the machine occupies said support member, to facilitate the adjustment of an impression-receiving object, substantially as specified.

65. A support for type-writing machines having a base, a supporting-strip mounted for adjustment perpendicular to the plane of the base, means for securing said strip at the desired adjustment, a support member having tracks carried by said supporting-strip and located outside of the printing area, and means for guiding the type-writing machine while traversing the printing area, substantially as specified.

66. A guide-rail for type-writing machines

having pivotally-connected elements adapted to be traversed alternately by the machine, one element being free for movement, to expose the impression-receiving surface when the other is occupied by the machine, substantially as specified.

67. A guide-rail for type-writing machines having pivotally-connected elements adapted to be traversed alternately by the machine, one of said elements being adapted to swing in a vertical plane to expose the impression-receiving surface when the other is occupied by the machine, substantially as specified.

68. A guide-rail for type-writing machines having elements arranged in a common plane and adapted to be traversed alternately by the machine, one of said elements being displaceable, to give access to the impression-receiving surface, when the other element is occupied by the machine, substantially as specified.

69. A guide-rail for type-writing machines having elements arranged in alinement and adapted to be traversed alternately by the machine, one of said elements being displaceable, to expose the impression-receiving surface when the other element is occupied by the machine, substantially as specified.

70. A guide-rail for type-writing machines having pivotally-connected elements, of which one is provided at the joint with a reinforcing-tongue, projecting beyond the pivot and overlapping the other element, substantially as specified.

71. A guide-rail for type-writing machines having pivotally-connected elements, of which one is provided at the joint with a rigid reinforcing-tongue, extending beyond the pivot and fitted in a cavity in the other element, said other element, in movement, being adapted to swing toward and from the plane of said tongue, to give access to an impression-receiving surface, substantially as specified.

72. Parallel track-rails for a type-writing machine having pivotal elements, and a transverse connection between said pivotal elements to provide for the simultaneous swinging movement thereof, in combination with a temporary machine-support located beyond said pivotal elements, to receive the machine when at rest, substantially as specified.

73. A support for type-writing machines having a stationary rest or machine-support, parallel track-rails for the type-writing machine, having pivotal elements located beyond the area of said rest, and a transverse connection between said pivotal elements, to provide for the simultaneous swinging movement thereof to expose the impression-receiving surface, substantially as specified.

74. A support for type-writing machines having a stationary rest or machine-support, and parallel track-rails, each having elements, of which one is carried by said rest, and the other is arranged in a common hori-

zontal plane therewith, one of the rails having its elements pivotally connected, whereby that element which is located beyond the area of the rest may be displaced, by swinging movement, to expose the printing area, substantially as specified.

75. A support for type-writing machines having a stationary rest or machine-support, parallel track-rails, each having elements, of which one is located upon said rest, and the other is located beyond the area of the rest, and is pivoted for swinging movement, and a connection, between the rail elements which are located beyond the area of the rest, to provide for the simultaneous swinging movement thereof, substantially as specified.

76. A support for type-writing machines having a stationary rest or machine-support, parallel track-rails, each having pivotally-connected elements, of which one is arranged upon said rest, and the other is arranged outside of or beyond the area of the rest, and a transverse connection between the track elements which are located beyond the area of the rest, to provide for the simultaneous swinging movement thereof to expose the impression-receiving surface, substantially as specified.

77. A support for type-writing machines having a stationary rest or machine-support, parallel track-rails having pivotal elements to receive the type-writing machine when advanced from said rest, and a rigid transverse connection between said pivotal elements, to provide for the simultaneous swinging movement thereof when the machine is supported by the rest, substantially as specified.

78. A support for type-writing machines having a stationary member for receiving the machine when at rest, parallel track-rails having pivotal elements located beyond the area of said stationary member, and adapted to receive the machine therefrom, a transverse connecting-bar between said pivotal rail elements, and an adjustable connection between said bar and the rail elements, whereby the interval between the rail elements may be varied, substantially as specified.

79. The combination with track-rails having pivotal elements arranged in parallelism and adjustable to vary the interval therebetween, of a connecting-bar between said pivotal rail elements, and an adjustable connection between said bar and the rail elements, substantially as specified.

80. The combination with track-rails having pivotal elements arranged in parallelism and adjustable to vary the interval therebetween, of a transverse connecting-bar between the pivotal rail elements and provided with seats to engage pins on said elements at different adjustments of the track-rails, substantially as specified.

81. The combination with track-rails having pivotal elements arranged in parallelism

and adjustable to vary the interval therebetween, of a transverse connecting-bar between the rail elements and provided with spaced open-sided seats, and pins on the pivotal rail elements consisting of thumb-screws for engagement with the seats of the connecting-bar, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HIRAM JOSEPH HALLE.

Witnesses:

C. L. WIEBE,
E. H. SEIXAS.