

No. 705,521.

Patented July 22, 1902.

R. J. FISHER.

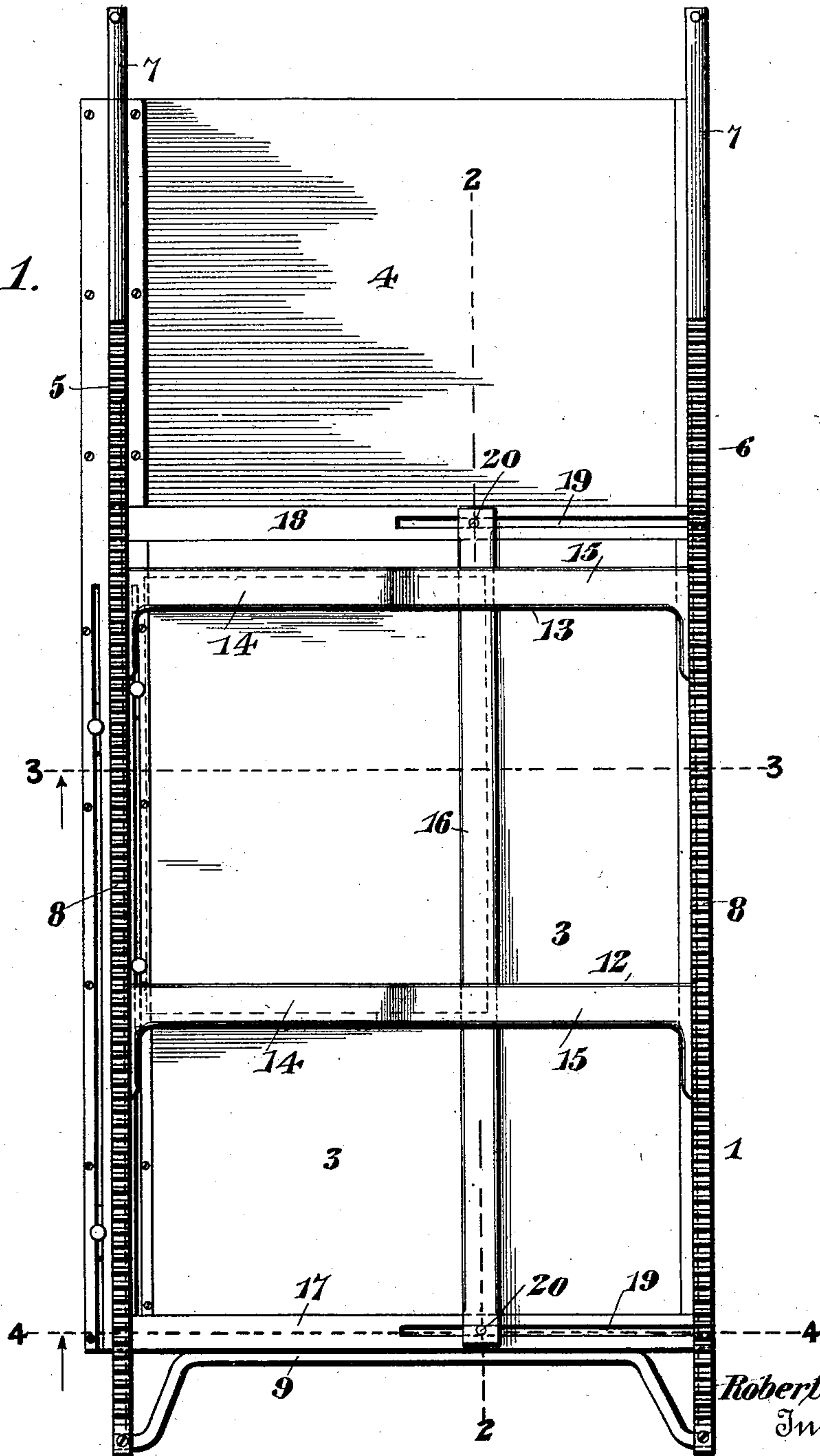
PLATEN FOR TYPE WRITING MACHINES.

(Application filed June 21, 1901.)

(No Model.)

3 Sheets—Sheet 1.

*Fig. 1.*



*Robert J. Fisher,*  
Inventor

By

*E. G. Siggers*

Attorney

Witnesses  
*Jas. E. McEachran*  
*Louis G. Julihn*

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3 Sheets—Sheet 2.

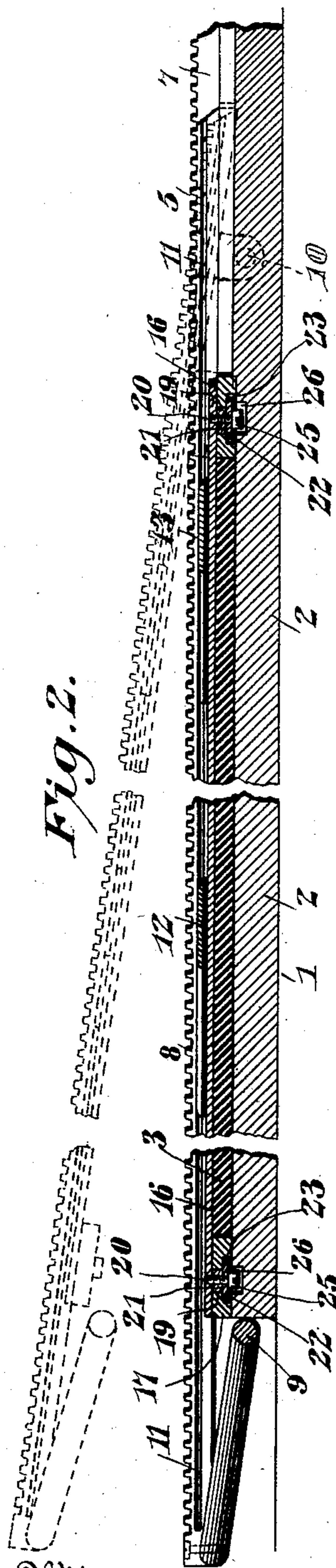


Fig. 2.

Fig. 3.

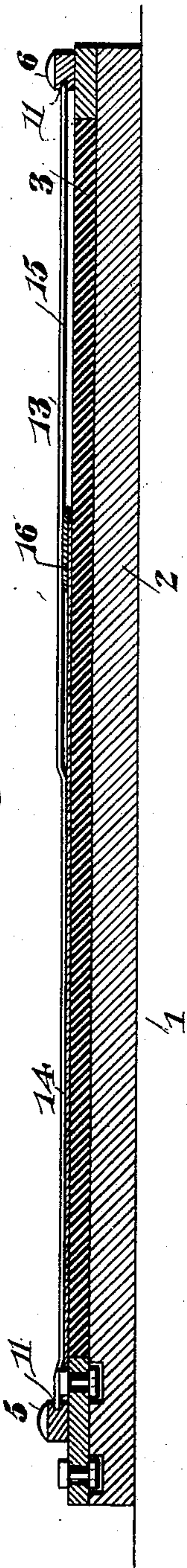


Fig. 4.

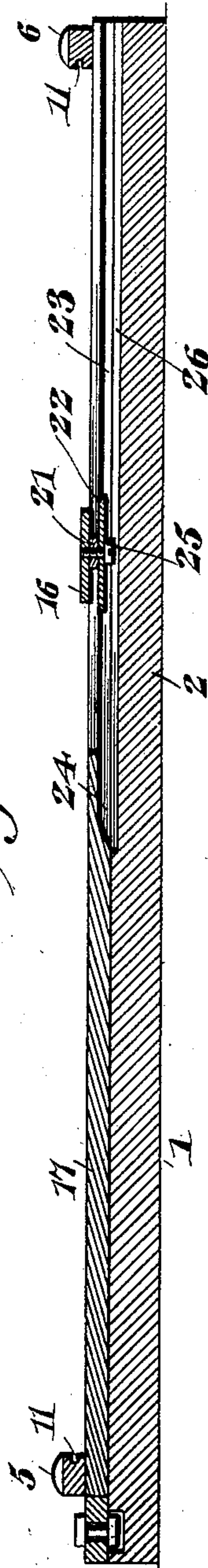
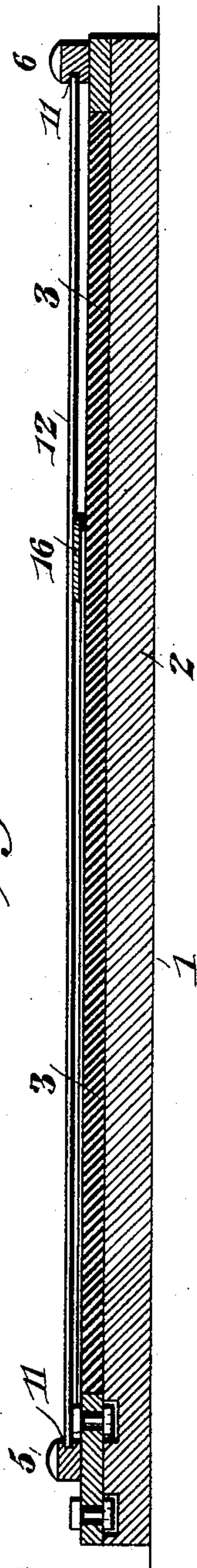


Fig. 5.



Robert J. Fisher, Inventor

By

E. G. Slinger

Attorney

Witnesses  
Jas. K. McLaughlin  
Louis G. Juhn



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3 Sheets—Sheet 3.

Fig. 6.

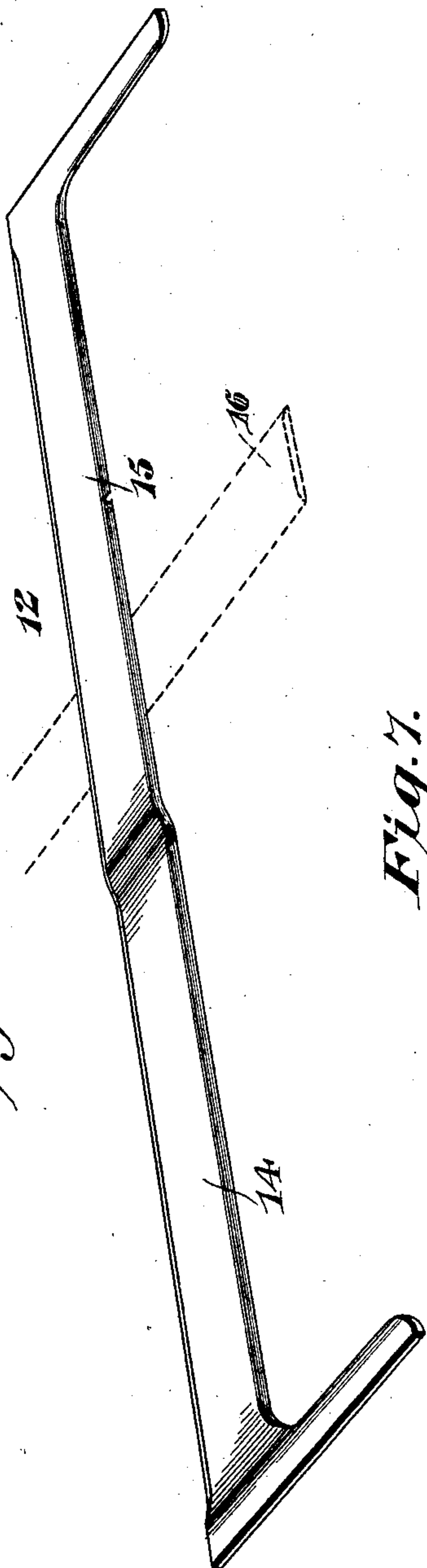


Fig. 7.

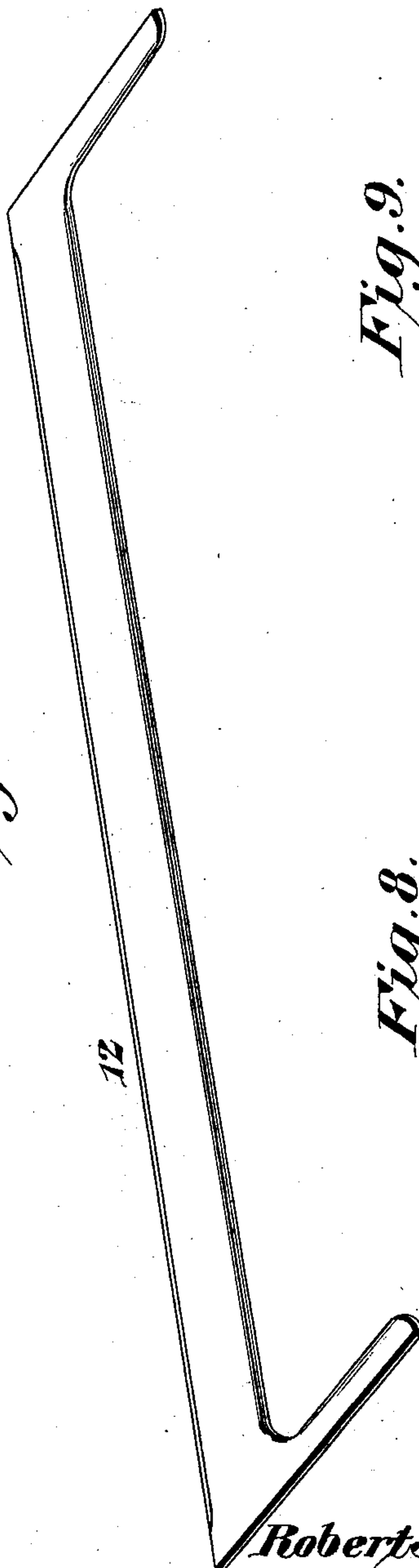


Fig. 9.

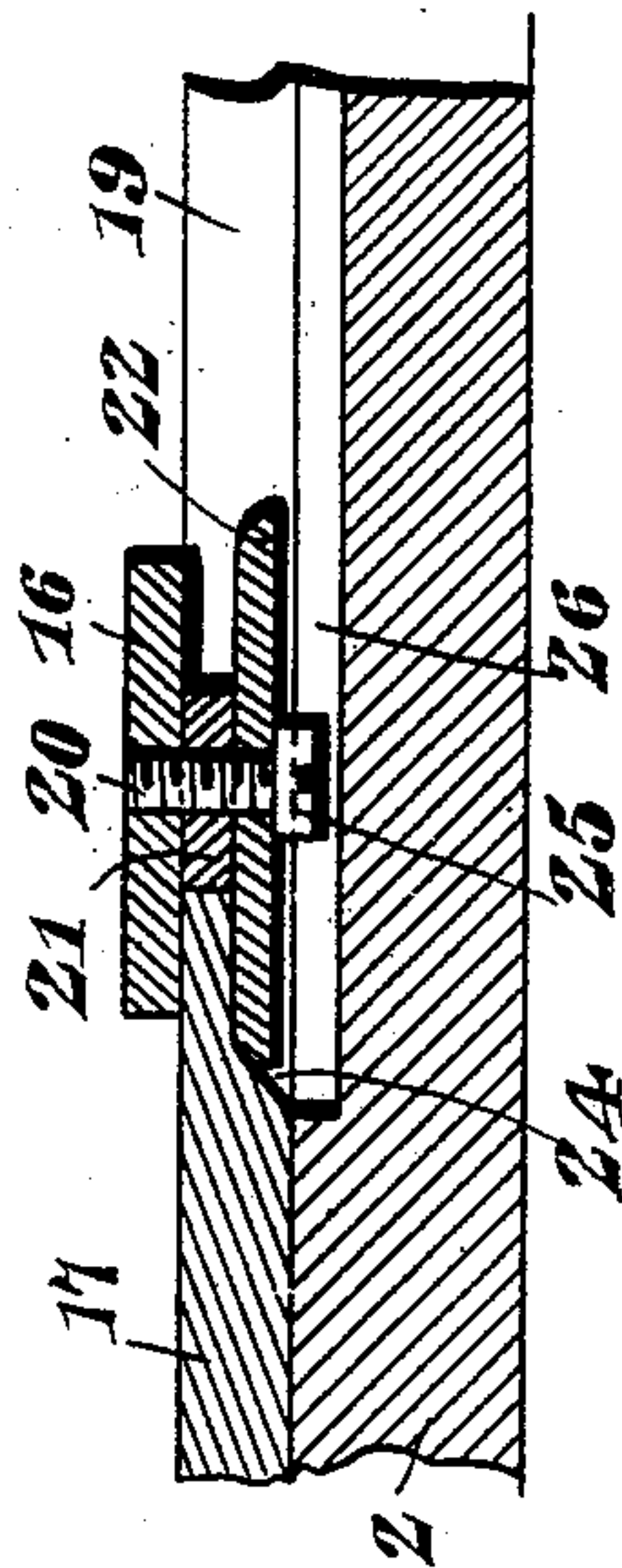
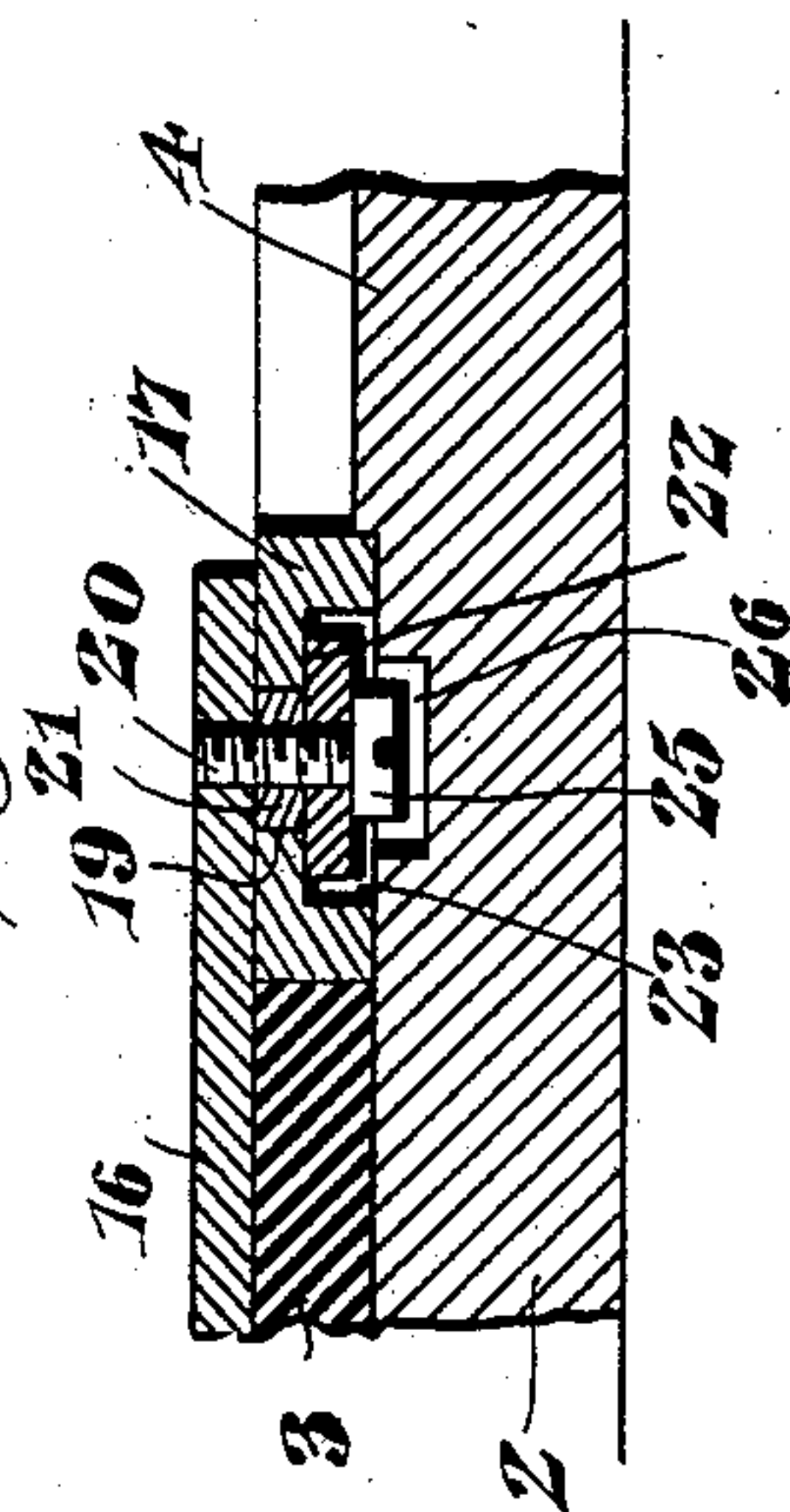


Fig. 8.



Witnesses  
Jas. E. McCathran  
Louis G. Julian

By *Robert J. Fisher* Inventor  
*E. G. Siggers* Attorney



# UNITED STATES PATENT OFFICE.

ROBERT JOSEPH FISHER, OF ATHENS, TENNESSEE, ASSIGNOR TO THE FISHER BOOK TYPEWRITER COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF DELAWARE.

## PLATEN FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 705,521, dated July 22, 1902.

Application filed June 21, 1901. Serial No. 65,486. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT JOSEPH FISHER, a citizen of the United States, residing at Athens, in the county of McMinn and State of Tennessee, have invented a new and useful Platen for Type-Writing Machines, of which the following is a specification.

This invention relates to improvements in type-writing machines of that class distinguished by a flat platen designed to sustain a work-sheet in a flat or spread-out condition and to support traveling printing mechanism which is movable both longitudinally and transversely over the platen.

The object of the invention is to equip a flat platen of the character specified with a simple, inexpensive, and highly-efficient form of work-holding means adjustable to accommodate work-sheets of various sizes and arranged to protect, hold, and guard the opposite end edges of the sheet, as well as one or both of the side edges thereof. In this particular aspect of the invention it embraces the thought involved in the application of Joram Ziegler, No. 65,482, wherein is disclosed a platen equipped with work holding and guarding members disposed transversely and longitudinally of the platen, respectively, and individually adjustable to locate said members in proper position with respect to sheets of various sizes. The Ziegler application, however, discloses a laterally-adjustable longitudinally-disposed work-holding member in the form of a thin flexible strip or tape, the employment of which necessitates the use of tension mechanism for taking up the slack in said tape. In the Ziegler as well as in the present invention the work-holding members are movable toward and away from the writing-surface with a vertically-movable frame comprising in the illustrated constructions a pair of hinged sections of the main tracks or guides for the traveling printing-frame.

The object of the present invention, as distinguished from the Ziegler, wherein the longitudinal member, strip, or tape is supported in part by the frame, is to mount the entire work-holding structure wholly upon the vertically-movable frame and to obviate the necessity for the employment of the thin metal

tape and the complementary devices made necessary in the Ziegler construction for the purpose of taking up the slack in the tape when the frame is raised and lowered.

To the accomplishment of this object and others subordinate thereto, all as will hereinafter more fully appear, my invention consists in equipping a flat platen, such as is ordinarily employed with the Fisher type-writing machine, with transversely-disposed work-holding members and a longitudinally-disposed work-holding member in the form of rigid metal plates or webs supported wholly by the vertically-movable supporting-frame and capable of individual adjustment to accommodate work-sheets of varying dimensions.

The invention furthermore consists in certain details of construction and arrangement to be hereinafter more fully described, illustrated in the accompanying drawings, and succinctly defined in the appended claims.

In said drawings, Figure 1 is a plan view of a flat platen equipped with work holding, guarding, and protecting means constructed and arranged in accordance with my invention. Fig. 2 is a longitudinal section on the line 2 2 of Fig. 1, the scale being somewhat enlarged and parts being broken away to facilitate the illustration. Fig. 3 is an enlarged transverse sectional view on the line 3 3 of Fig. 1. Fig. 4 is a similar view on the line 4 4 of Fig. 1. Fig. 5 is a sectional view similar to Fig. 3, but showing a slightly-modified form of transverse guarding and protecting member. Fig. 6 is a detail perspective view of one of the transverse members or webs detached. Fig. 7 is a similar view of that form of member shown in Fig. 5. Fig. 8 is a detail sectional view of one of the adjustable connections between the longitudinally-disposed holding member and one of the supporting-bars; and Fig. 9 is a sectional view of the same subject-matter, the line of section being taken at right angles to the line of section of Fig. 8.

Like numerals of reference are employed to designate corresponding parts throughout the views.

The platen 1 illustrated in the accompany-



ing drawings is a flat rectangular platen such as is now used commercially with certain of the Fisher type-writing machines, which latter are exemplified in the patent to  
 5 R. J. Fisher, No. 569,491; but it is evident that a flat platen employed in connection with any other type of machine might be equipped with my invention with equal facility. The platen shown comprises a metal  
 10 base 2, covered by a suitable writing-surface 3, upon which the work-sheet is designed to be held in a smooth flat condition. This writing-surface 3, which is of any suitable composition, need not extend over the entire  
 15 base, but may terminate at a considerable distance from the rear end of the base, as shown in Figs. 1 and 2, the uncovered portion 4 of the base 2 beyond the rear end of the writing-surface or printing area constituting a platen extension over which the  
 20 traveling printing-frame (not shown) is disposed when moved back from the printing position. This type of platen is equipped with the longitudinal main tracks or guides  
 25 5 and 6 for the machine-frame, and these tracks or guides are made up of fixed sections 7 and swinging or hinged sections 8, the latter being connected—as, for instance, by a transverse connecting-bar 9—to produce a  
 30 swinging frame disposed above the platen and vertically-movable toward and from the writing-surface. The hinged connection of this frame with the platen is located beyond the rear end of the printing area, as indicated  
 35 at 10 in Fig. 2, so that the frame when elevated will be entirely removed from the writing-surface to facilitate the displacement of the printed work-sheet from the platen and its replacement by a blank sheet.  
 40 The frame, composed of the swinging track-sections 8 and the connecting-bar 9, may be designated as a "machine-supporting frame" disposed above the platen and vertically movable toward and from the writing-surface;  
 45 but it is the purpose of the present invention to lend an additional character to this frame—namely, that of a work holding and guarding frame, as well as a frame for the support of the machine. In accordance with this object  
 50 the frame is equipped with work-holding members individually adjustable to bring them in proper position with respect to work-sheets of various sizes and disposed transversely and longitudinally of the platen to  
 55 hold, guard, and protect both the end and side edges of the sheet. As heretofore stated, the invention in this broad aspect closely resembles that illustrated in the Ziegler application hereinbefore mentioned. The present  
 60 invention, however, contemplates the mounting of the several work holding and protecting members wholly upon the vertically-movable frame and in another aspect the employment of comparatively inflexible metallic or  
 65 other work-holding strips. The inner or opposed faces of the swinging rail-sections 8 are formed with longitudinal grooves 11, which

slidably receive the opposite ends of a pair of transverse work holding or guarding and protecting members 12 and 13, preferably in  
 70 the form of light metal strips, plates, or webs designed to be shifted individually over the writing-surface in the direction of line-spacing either forward or backward—that is to  
 75 say, longitudinally of the platen—so as to present the members or strips over the end edges of the work-sheet irrespective of the dimensions thereof. Individually these strips and the manner of mounting them are substantially like the guard disclosed in the concurrent application for patent of Herman F.  
 80 Eckert, No. 38,806, and the idea of duplicating these transverse members for the purpose of protecting both the top and bottom edges of the sheet is disclosed in the Ziegler  
 85 application. In a specific aspect, however, each of the transverse work-holding members illustrated in the accompanying drawings is novel, inasmuch as these members are depressed throughout a considerable portion of  
 90 their length to form a clamping or holding portion or section 14, which is disposed in a slightly-lower plane than the grooves in the rails, so that the members each comprise a clamping portion 14 and a slightly-elevated  
 95 portion 15. The raised portions 15 of the transverse holding members or strips 12 and 13 are disposed sufficiently above the writing-surface to permit the interposition of the longitudinally-disposed work-holding member,  
 100 guard, or protector 16, which, as heretofore stated, is preferably formed from a rigid strip, plate, or web of metal, as distinguished from the thin flexible tape disclosed in the Ziegler application.  
 105

The longitudinal member 16 rests flat upon the writing-surface of the platen and extends slightly beyond the opposite ends of the printing area. (See Figs. 1 and 2.) The member 16 is adjustably supported at its opposite  
 110 ends by supporting-bars 17 and 18, extending between and secured, preferably, to the under sides of the swinging rail-sections 8 and normally disposed flush with the writing-surface. In order to permit this relation  
 115 of the parts, the front end of the composition covering or surface 3 is terminated at a short distance from the front end of the base, and the supporting-bars 17 and 18 are located so as to rest normally upon the base 2 and against  
 120 the opposite ends of the writing-surface 3, so as to present the upper sides of the supporting-bars in the horizontal plane of the surface against which the work-sheet is held.

Obviously the adjustable connection between the ends of the member 16 and the supporting-bars is susceptible of a wide variety of modification; but a simple and convenient connection is produced by forming longitudinal slots 19 in the supporting-bars for  
 125 the reception of adjusting-screws 20, secured to the member 16 and retaining the small spacing-disks 21, located within the slots 19, and slide-plates 22 of considerable length  
 130



and somewhat wider than the spacing-disks 21. The slide-plates 22 are located within widened portions 23 of the slots 19, said widened portions being disposed at the under sides of the supporting-bars 18, as shown in Figs. 2 and 8. As shown in Figs. 4 and 9, the supporting-bars are undercut, as at 24, beyond the inner ends of the slots 19 to accommodate the ends of the slide-plates 22 when the longitudinally-disposed work-holding member or strip 16 is disposed at the limit of its transverse adjustment in one direction. The heads 25 of the adjusting-screws 20 are disposed against the under faces of the slide-plates 22, so that when the member 16 has been shifted to any desired position it may be securely retained by turning the screws 20 sufficiently to clamp the member 16 to the supporting-bars in an obvious manner.

As shown in Figs. 2, 8, and 9, the upper face of the base 2 is formed with grooves 26 for the reception of the screw-heads 25, so that when the swinging frame is lowered upon the platen the parts will rest in such close-fitting relation as will produce a compact structure.

It will be noted that by the employment of the work-holding members 12, 13, and 16 the top and bottom edges, as well as one side edge of the work-sheet, may be held, protected, and guarded, and it will be equally obvious that the left-hand rail-section, constituting a part of the swinging frame, may be utilized to cover and protect the remaining side edge of the sheet. In fact, such use of this frame member is contemplated, and, as shown in the accompanying drawings, the platen may be additionally equipped with a work-gage, that shown being of the type disclosed in the concurrent application of Charles F. Laganke, No. 52,221. In use the traveling printing mechanism (not shown) is moved rearwardly over the platen to a position beyond the rear end of the printing area and above the platen extension 4. The vertically-movable combined machine-supporting and working-holding frame is then raised from the platen for the purpose of removing the several work holding and guarding members from the writing-surface to permit the imposition thereon of a work-sheet of any desired size, the positioning of the sheet being facilitated by the work-gage or abutment. The frame is then lowered and the work-holding members are shifted laterally or horizontally of the platen, as the case may be, until they occupy positions directly over the end and side edges of the sheet. This location of the members or webs serves to effect the retention of the sheet in its proper printing position and also protects and guards the edges of the sheet from possible contact with the machine-frame as the printing mechanism is moved over the platen. Upon the completion of the printing operation the frame is again elevated, the work-sheet is removed, and after replacement thereof by a blank sheet the recited operation may be repeated.

It is thought that the construction, operation, and special utility of the invention will be clearly understood from the foregoing description thereof; but I desire it to be distinctly understood that I reserve the right to effect any and all changes, modifications, and variations of the illustrated structure which may be necessary to the equipment of various types of platens or which may be suggested by experience and experiment, as it is obvious that the construction shown and described is susceptible of a wide range of variation within the scope of the protection prayed.

What I claim is—

1. In a type-writing machine, the combination with a flat platen to support the work-sheet, of work-holding means comprising transverse and longitudinal rigid plates disposed above the platen and movable in unison toward and from the same, said plates being individually adjustable longitudinally and transversely, respectively, of the platen.

2. In a type-writing machine, the combination with a flat platen to support the work-sheet, of a vertically-movable frame disposed over the platen, and a plurality of individually-adjustable work-holding members movable in unison with the frame and disposed transversely and longitudinally of the platen, said members having the form of rigid plates or webs.

3. In a type-writing machine, the combination with a flat platen to support the work-sheet, of a vertically-movable machine-supporting frame carried by and disposed over the platen, and an individually-adjustable work holding or guarding member disposed longitudinally of the platen and supported wholly by said frame between the opposite sides thereof for movement therewith away from the writing-surface.

4. In a type-writing machine, the combination with a flat platen to support the work-sheet, of a vertically-movable machine-supporting frame disposed thereover, and individually-adjustable transverse and longitudinal work holding or guarding members supported wholly by the frame for movement therewith away from the writing-surface.

5. In a type-writing machine, the combination with the flat platen to support the work-sheet, of the vertically-movable main tracks or guides, a pair of transverse supporting-bars carried by the vertically-movable tracks or guides, and disposed normally below the plane of the writing-surface, and a work holding and guarding member adjustably supported at its opposite ends by the supporting-bars and disposed longitudinally over the writing-surface.

6. In a type-writing machine, the combination with a flat platen to support the work-sheet, of the vertically-movable main tracks or guides for the traveling printing mechanism, a plurality of transverse work holding and guarding members slidably engaging



said tracks or guides, a plurality of supporting-bars rigidly secured to said tracks or guides, and a longitudinal work holding and guarding member adjustably carried by said supporting-bars.

7. In a type-writing machine, the combination with a flat platen to support the work-sheet, of work holding and guarding means comprising members disposed substantially at right angles to each other, one of said members having a slightly-elevated portion to accommodate the subjacent member.

8. In a type-writing machine, the combination with a flat platen to support the work-sheet, of a work holding and guarding member disposed over the platen, said member being formed with portions thereof located in different planes, and a second holding and guarding member disposed under the elevated portion of the first-named member.

9. In a type-writing machine, the combination with a flat platen, and the main tracks or guides, of transverse work holding and guard-

ing members slidably engaging said tracks or guides, supporting-bars connected to the tracks or guides, and a longitudinal work holding and guarding member adjustably supported by the bars, said transverse members having elevated portions to accommodate the movement of the subjacent longitudinal member.

10. In a type-writing machine, the combination with a flat platen to support the work-sheet, and the main tracks or guides, of slotted transverse supporting-bars carried by the tracks or guides, a work holding and guarding member supported by said bars, and adjusting devices connected to said member and movable in the slots of the supporting-bars.

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

ROBERT JOSEPH FISHER.

Witnesses:

A. R. WARNER,  
CHAS. F. LAGANKE.