

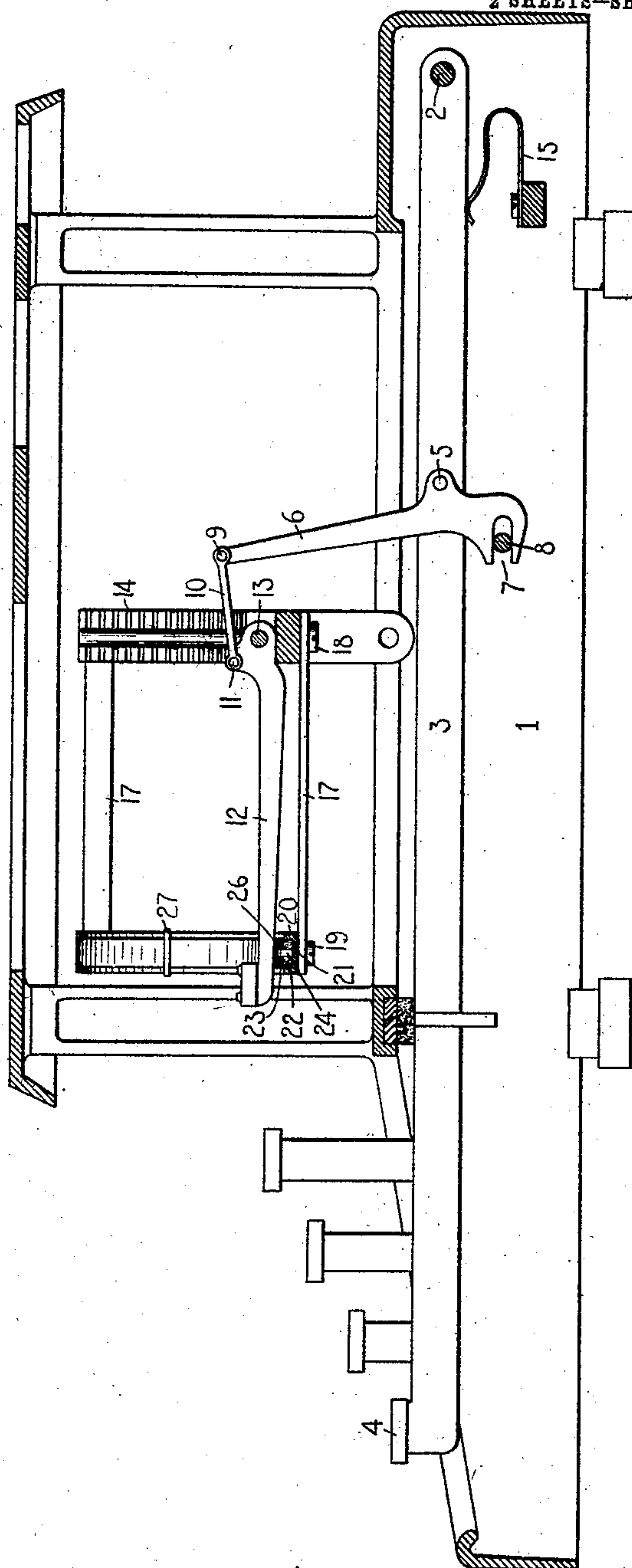
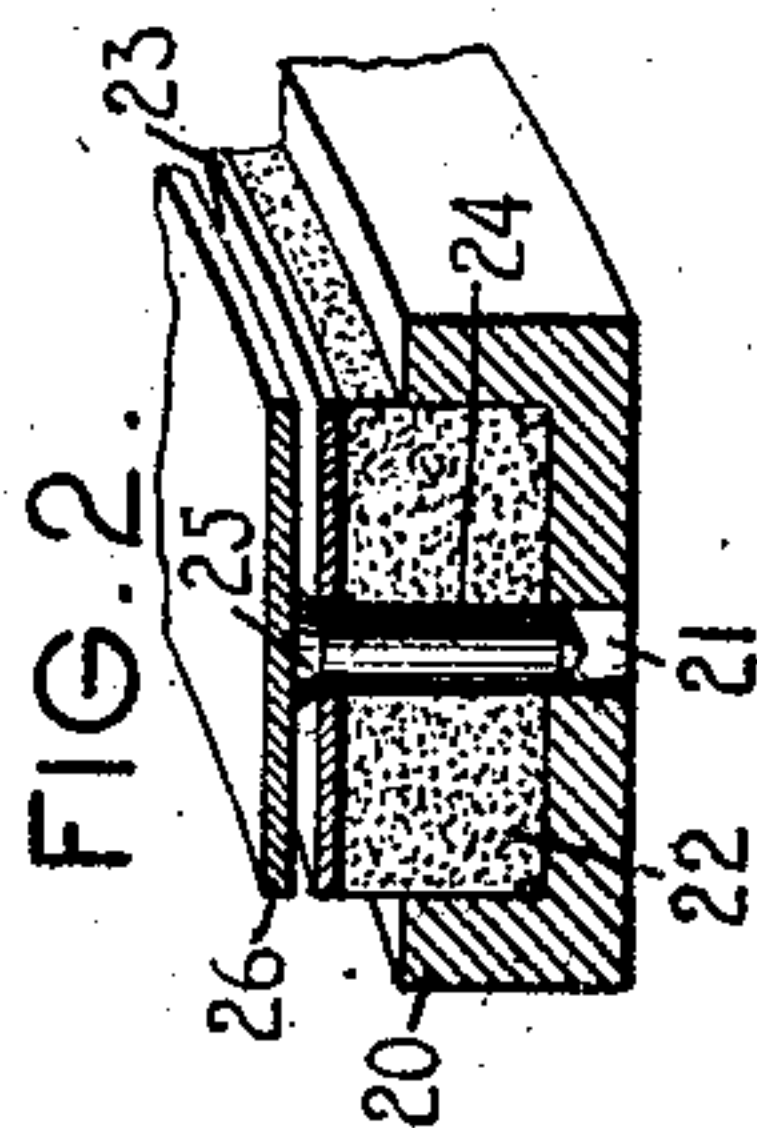
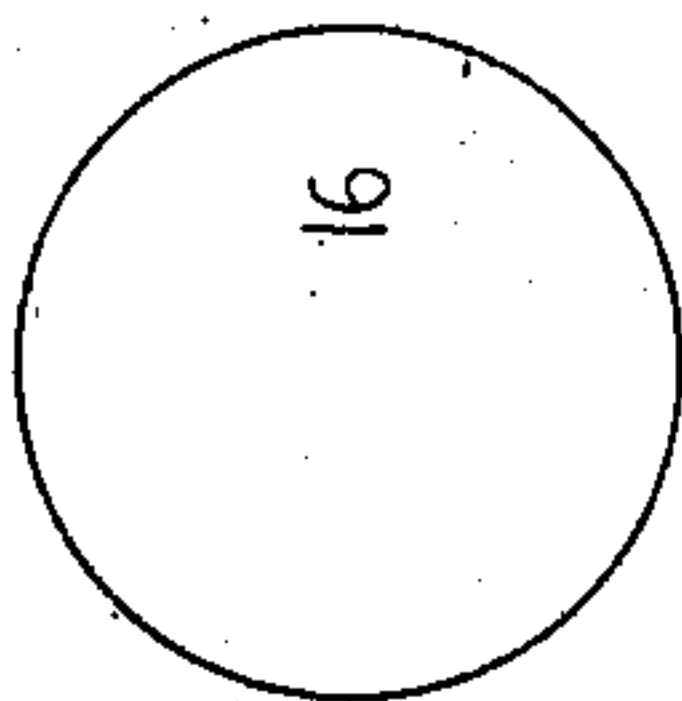
No. 842,434.

PATENTED JAN. 29, 1907.

B. C. STICKNEY.
TYPE WRITING MACHINE.
APPLICATION FILED AUG. 4, 1903.

2 SHEETS—SHEET 1.

FIG. 1.



WITNESSES:

K. V. Donovan
Charles Smith

INVENTOR:

Burnham C. Stickney
by *Jacob Felber*
HIS ATTORNEY.

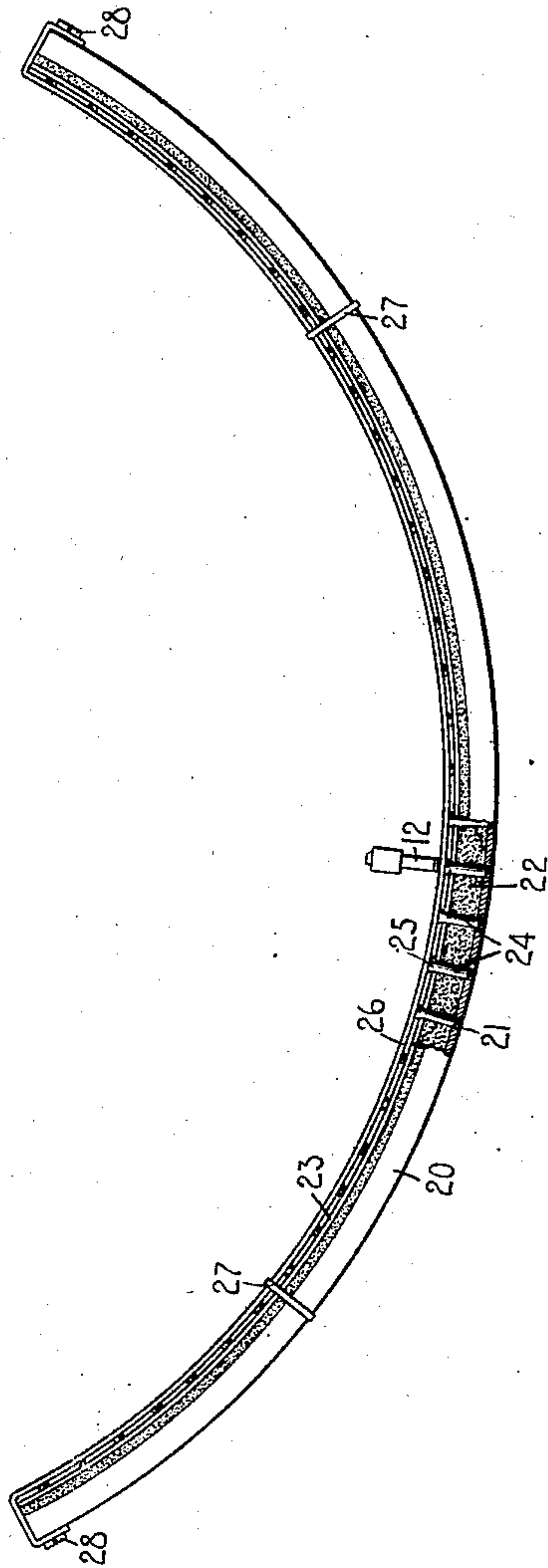
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TYPE WRITING MACHINE.
APPLICATION FILED AUG. 4, 1903.

2 SHEETS—SHEET 2.

FIG. 3.



WITNESSES:

R. V. Donovan
Charles Smith

INVENTOR:

Burham C. Stickney

by *Jacob F. Felt*

HIS ATTORNEY

UNITED STATES PATENT OFFICE.

BURNHAM C. STICKNEY, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO UNION TYPEWRITER COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

No. 842,434.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed August 4, 1903. Serial No. 168,245.

To all whom it may concern:

Be it known that I, BURNHAM C. STICKNEY, a citizen of the United States, and a resident of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

Ordinarily in type-writing machines the type-bars at times rebound from the basket to such an extent that there is liability of conflict or interference between the adjacent bars near the type-basket, and especially is this true when the machine is rapidly operated. Thus, for instance, if one type-bar moves back to the normal position with such rapidity that it strikes the basket or support with force sufficient to cause it to rebound and another adjacent bar is moving toward the printing-point at this time there is liable to be a conflict or clashing of the bars adjacent to the basket, and this is more pronounced in machines in which the type-bars are segmentally arranged, it being necessary to place the type-bars in close arrangement in such machines in order to get the required number in the segment.

The object of my present invention is to overcome the difficulties above pointed out and to provide simple and efficient means for preventing or reducing the extent of rebound of the type-bars to a minimum, so as to avoid liability of conflict or interference thereof.

To the above and other ends, which will hereinafter appear, my invention consists in the novel features of construction, arrangements of parts, and combinations of devices to be hereinafter described, and particularly pointed out in the appended claims.

The present invention is in the nature of an improvement upon the devices made the subject of my pending application, Serial No. 135,361, filed December 16, 1902.

In the accompanying drawings, wherein like reference-numerals represent corresponding parts in the various views, Figure 1 is a front-to-rear vertical sectional view of one form of type-writing machine embodying my invention. Fig. 2 is an enlarged fragmentary detail transverse sectional view of the type-basket or type-bar support. Fig.

3 is a detail front elevation of the same with parts broken away.

The framing 1 of the machine supports a pivot-rod 2, on which key-levers 3 are pivoted. Each key-lever is provided with the usual finger-key 4 and is pivoted at 5 to a sublever 6, that is slotted at 7 near its lower end where it coöperates with a fixed fulcrum-rod 8. The upper end of each sublever is pivoted at 9 to a draw-link 10, which in turn is pivoted at its opposite end 11 to a type-bar 12. The various type-bars are pivoted on a segmental pivot-wire 13, that is supported by a segment 14, and the usual restoring-spring 15 is provided for each key-lever and is operative to restore the key-lever and the parts connected thereto to the normal positions.

While I have shown but a single complete type action, it should be understood that the type-bars 12 are segmentally arranged in the segment and strike upwardly and rearwardly on the platen 16 and that the various type-bars are each connected in the manner described.

Projecting forwardly from the type-bar segment are arms 17, secured to the segment by screws 18 and connected at their forward ends by screws 19 to a substantially U-shaped segmental rigid support 20, the opening of which extends upwardly. This rigid support is provided with a series of transverse openings or perforations 21, that radiate from a point coincident or substantially coincident with a horizontal line extending forward from the printing point or center, and each perforation is in the plane of movement of an associated type-bar when the latter is in a position of rest.

Seated within the U-shaped rigid support is a flexible or resilient pad 22, preferably made of felt, and which has a series of radiating openings or perforations therein that correspond in number to the number of the type-bars and to the openings in the rigid support, the openings in the pad being in register with the openings of the rigid support. The upper face of the pad 22 has a facing 23, which is preferably made of leather, and this facing likewise has a series of perforations which correspond in number and register with the

perforations in the pad and in the rigid support. Seated friction-tight in each of the perforations in the facing and pad is a metal peg or pin 24, which is provided with a head 25, that is preferably inclined at its under side, as illustrated in Fig. 2. The size of the head is such that the pin is prevented from being driven through the perforations in which it is seated.

In practice the pins 24 are preferably of a non-resilient material or metal and may consist of ordinary wire nails or brads. From an examination of Fig. 2 it will be seen that the lower end of each pin 24 extends into the registering opening 21 in the rigid support and that the various pins extend longitudinally in the planes of movement of the type-bars—that is to say, each pin extends longitudinally in the plane of the type-bar with which it coöperates to receive the impact thereof in the movement of the type-bar back to the normal position, so that the pins extend longitudinally in radiating planes.

Extending above the heads of the various pins is a flexible facing, sheathing, or strip 26, of leather or other suitable material, which constitutes a facing that receives the direct blow of the various type-bars and transmits the impact to the pins 24. The strip 26 is preferably independent of the pad and is maintained spaced apart from the facing 23, as illustrated in Fig. 2, and may be secured in place against lateral displacement by suitable U-shaped clamps 27, that secure the strip against lateral movement, but permit a free movement thereof toward and away from the rigid support 20, the ends of the strip 26 being secured to the rigid support by screws 28.

Each type-bar rests near its outer end upon the strip 26 above the head of a pin 24, as represented in Fig. 3, and in the actuation of the machine the retrograde movement return of a type-bar to its normal position will bring it in contact with the strip 26 and drive down the pin 24, and the friction produced by the pin moving in the hole in the felt pad absorbs somewhat or altogether the force of the blow, and this same frictional contact between the metallic pin and the felt pad renders the recovery of the felt slow, and hence prevents or diminishes to a minimum the rebound of the type-bar from the basket.

While I have shown one mode of carrying out my invention, it should be understood that various changes in details of construction may be made without departing from the spirit of my invention.

I do not herein claim anything disclosed in my pending applications, Serial No. 135,361, filed December 16, 1902, and Serial No. 159,589, filed June 1, 1903.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a type-writing machine, the combination of a series of type-bars, a type-basket

on which said type-bars normally rest and which comprises a pad in which a plurality of metal pieces are seated and by which they are supported, each metal piece receiving direct support from the pad.

2. In a type-writing machine, the combination of a series of type-bars, a type-basket on which said type-bars normally rest and which comprises a rigid support, a flexible or resilient pad mounted on said support and independent metallic pieces embedded in said pad and spaced apart longitudinally of the pad, each metal piece receiving direct support from the pad.

3. In a type-writing machine, the combination of a series of type-bars, a type-basket on which said type-bars normally rest and which comprises a rigid support, a flexible or resilient pad mounted on said support, independent non-resilient pieces embedded in said pad and supported thereby and a sheathing over the face of said pad and which receives the impact of the type-bars during the retrograde movements thereof.

4. In a type-writing machine, the combination of a series of type-bars, a type-basket on which said type-bars normally rest and which comprises a felt pad having a series of metal pieces embedded therein and supported thereby, and a leather covering on which the type-bars rest.

5. In a type-writing machine, the combination of a resilient pad, and metal pieces which are seated friction-tight in the pad and are adapted to move therein by impact of the type-bars.

6. In a type-writing machine, the combination of a resilient pad, metal pieces which are seated friction-tight in the pad and are adapted to move therein, and a facing for said metal piece that is independent of said pad and is spaced apart therefrom.

7. In a type-writing machine, the combination of a pad having openings therein, metal pieces that are carried by the pad and are seated friction-tight and are guided in their movement in said openings, and a leather facing-strip that covers all of said metal pieces and which is adapted to receive the impact of the type-bars.

8. In a type-writing machine, the combination of a resilient pad having transverse openings therein, and metal pegs seated in said openings and adapted to receive the impact of the type-bars in the direction of the lengths of said pegs.

9. In a type-writing machine, the combination of a series of type-bars, a pad having transverse openings therein that correspond in number to the number of type-bars, and a metal peg that is seated in each of said openings and each of which receives the impact of a type-bar.

10. In a type-writing machine, the combination of a series of type-bars, a pad having

transverse openings therein that correspond in number to the number of type-bars, a metal peg that is seated in each of said openings and each of which receives the impact of a type-bar, and a flexible strip which covers all of said pegs.

11. In a type-writing machine, the combination of a series of type-bars, a rigid support which has a series of perforations therein, a pad seated on said rigid support, and having perforations which register with the openings in said rigid support, and a series of metal pegs, one of which is situated in each of the openings in the pad.

12. In a type-writing machine, the combination of a series of type-bars, a rigid support which has a series of perforations that correspond in number to the type-bars; a pad seated on said rigid support and having perforations which register with the openings in said rigid support, and a series of headed metal pegs, one of which is situated in each of the openings in the pad and a flexible covering-strip for the heads of said pegs.

13. In a type-writing machine, the combination of a series of type-bars, a rigid support, a pad secured to said support, and having a series of headed metal pegs that correspond in number to the type-bars and each of which extends longitudinally in the plane of movement of a type-bar and with the heads thereof extended toward the type-bars.

14. In a type-writing machine, the combination of a series of type-bars, a rigid support, a pad secured to said support and having a series of transverse openings therein that correspond in number to the type-bars, a headed metal peg seated in each of said openings and extending longitudinally in the plane of a type-bar and with the head thereof extending toward the associated type-bar, and a flexible covering for the heads of said pegs and against which the type-bars are adapted to strike.

15. In a type-writing machine, the combi-

nation of a series of segmentally-arranged type-bars, a segmental pad, and a series of radiating metallic pieces supported by said pad and each adapted to receive the impact of a type-bar.

16. In a type-writing machine, the combination of a series of segmentally-arranged type-bars, a segmental rigid support which is substantially U-shaped in cross-section, a pad seated in said support, and metallic pieces embedded in said pad and supported thereby, each metallic piece being supported directly by said pad.

17. In a type-writing machine, the combination of a series of segmentally-arranged type-bars, a segmental rigid support which is substantially U-shaped in cross-section, a pad seated in said support and provided with a series of radiating openings, a headed metal peg that is seated in each of said openings and with the head thereof extending toward an associated type-bar, and a flexible strip that extends over the heads of said pegs and which is independent of the pad.

18. In a type-writing machine, the combination of a pad, a leather facing on said pad, transverse registering openings in the pad and its leather facing, and headed pegs seated in said openings with the heads thereof situated outside of leather facing.

19. In a type-writing machine, the combination of a pad, a leather facing on said pad, transverse openings in the pad and its leather facing, headed pegs seated in said openings and with the heads thereof situated outside of leather facing and a flexible facing-strip that covers the heads of said pegs.

Signed at the borough of Manhattan, city of New York, in the county of New York and State of New York, this 30th day of July, A. D. 1903,

BURNHAM C. STICKNEY.

Witnesses:

MARIE F. HANNWEBER,
E. M. WELLS.