

L. C. MYERS.
 TABULAR BAR AND STOP.
 APPLICATION FILED APR. 25, 1917.

1,249,456.

Patented Dec. 11, 1917.

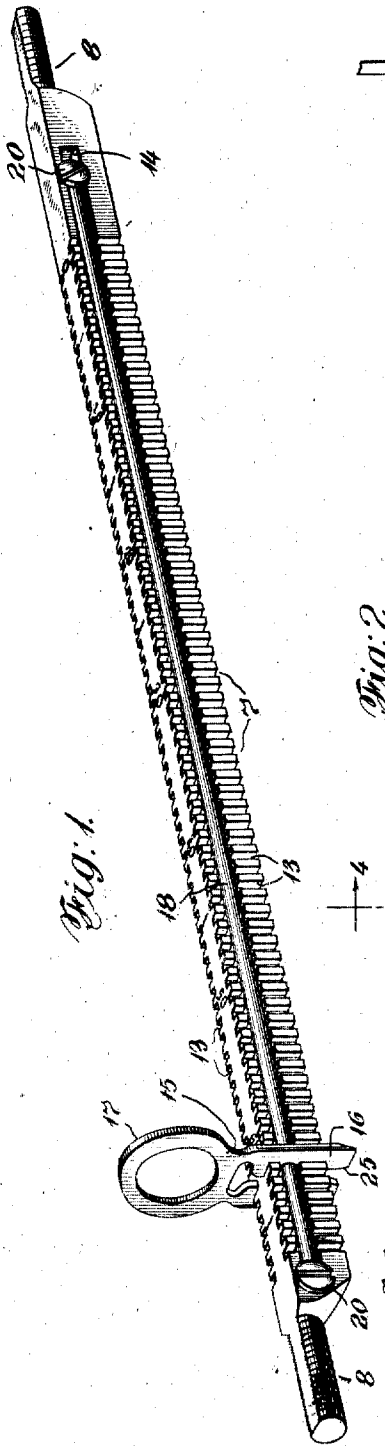


Fig. 1.

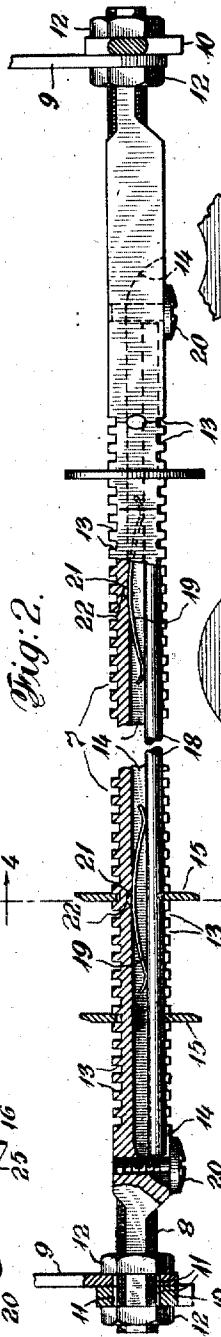


Fig. 2.

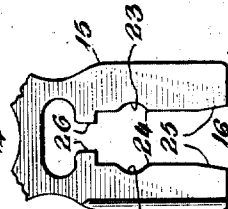


Fig. 3.

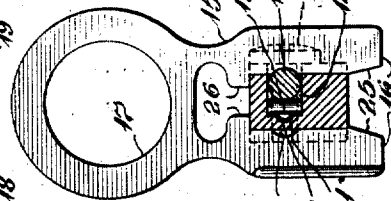


Fig. 4.

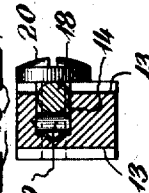


Fig. 5.

Inventor
 Lewis C. Myers

By his Attorney

Arnt Becker

UNITED STATES PATENT OFFICE.

LEWIS C. MYERS, OF BROOKLYN, NEW YORK, ASSIGNOR TO ROYAL TYPEWRITER COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

TABULAR BAR AND STOP.

1,249,456.

Specification of Letters Patent.

Patented Dec. 11, 1917.

Application filed April 25, 1917. Serial No. 164,368.

To all whom it may concern:

Be it known that I, LEWIS C. MYERS, a citizen of the United States, and a resident of the borough of Brooklyn, in the city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Tabular Bars and Stops, of which the following is a specification.

10 The present invention relates generally to typewriting or like machines, and has more particularly reference to what is generally known as tabular bars and stops by means of which, when the carriage is released in a well-known manner, the carriage may move transversely to a greater extent than a single letter-space distance.

15 A typical construction of bar and stop, as the art is at present constituted, consists in a tabular bar having vertical slots in its side faces, said bar extending transversely of the machine, together with stops that are removably seated on the bar. In the particular form, under consideration, the vertical slots are spaced letter-space distances apart, and the stops are of sheet material and provided with a lower bifurcated end, the legs of which straddle the bar and slide in the vertical slots of the bar. The walls of the slots, in addition to acting as a positioning means determining the correct position of the stops in respect to a scale usually carried by the bar, also act to prevent lateral displacement of the stops. In practice it has, however, been found that upward displacement out of the slots is liable to take place, especially after the stops have been in use for some time and after they have become worn due to their repeated insertion and withdrawal from the tabular bar.

20 The main object of the invention is to prevent accidental upward displacement of the tabular stop with respect to the bar and to provide simple and effective means for accomplishing this purpose.

25 In an application filed on April 25, 1917, Ser. No. 164370 by Edward B. Hess, there is disclosed an invention in the specific form of which the tabular bar is provided with a longitudinal channel in its upper face, the stops being provided with spring means, individually spring pressed, which project from between the legs of the lower bifurcated end of the stop and engage in the channel

to hold the stop against upward accidental displacement.

The present invention is an improvement upon the invention disclosed in said Hess application and consists of the following features:

30 A tabular bar is provided adapted to receive a tabular stop in any letter-space position, as by means of the vertical slots previously referred to, and means are provided which extend longitudinally of the bar which will hold the stop against accidental displacement in any letter-space position which the stop may occupy.

35 Another feature of the invention resides in having a plurality of tabular stops mounted on the bar so as to be individually removable, together with means for collectively holding said stops against accidental displacement.

40 In the specific form in which the inventive idea is clothed in the present application, the longitudinally extending member is preferably seated in a channel in the tabular bar, and this channel is preferably located in one of the side faces of the bar and cuts across the teeth of the vertical slots.

45 In this way the longitudinal member serves, by engaging with a suitable notch in one of the straddling legs of the stop, to hold a stop in any position on the bar, or to hold a number of stops collectively, at the same time permitting the withdrawal of any one stop when so desired.

50 In order to permit one end or portion of said longitudinal member to yield inwardly into the channel substantially independently of the remainder of said member, I preferably make use of a plurality of springs, and these springs are by preference arched springs and have suitable means for preventing their lateral displacement. The depth of the channel is in the form here disclosed greater than the cross-section of the longitudinal member, so that this member may assume an oblique position under the influence of the springs and unequal pressure exerted against these springs when inserting or removing a stop, so that the remaining stops, if any there be, may be held against displacement. The springs normally urge the member outwardly beyond the bottom of the slots to hold the stops properly in position, and suitable means are provided for

preventing undue outward displacement of the said member. In order to facilitate the engagement and disengagement of the longitudinal member with the notches of the stops, these notches are by preference cut so as to have beveled faces sloping in opposite directions.

In the accompanying drawings: Figure 1 is a perspective view of the tabular bar embodying a preferred form of the invention and showing a tabular stop in position.

Fig. 2 is a top plan view of the same, partly in section, showing also the means for supporting the tabular bar on the end frames of the carriage.

Fig. 3 is an end view of the tabular bar.

Fig. 4 is a transverse sectional view on the line 4-4 of Fig. 2 showing a stop in position.

Fig. 5 is a view similar to Fig. 4 with the stop removed from the bar.

The tabular bar 7 is generally square in cross section as shown and is reduced at its ends 8 to provide threaded stems flattened on the top. A convenient method of adjustingly mounting said bar in the laterally moving carriage consists in passing the reduced portion 8 through the end frames 9 of the carriage and through the paper table brackets 10. Said end frames and brackets are provided with openings 11 of slightly larger diameter than the reduced end portions 8, and two lock nuts 12, at each end, are provided for locking the bar 7 in its adjusted position with respect to the end frames 9 and paper table brackets 10.

The main body of the tabular bar 7 is provided with vertical slots 13 in its side faces, which slots are spaced letter-distances apart and are properly related to a scale indication on the upper face of the bar 7 as shown in Fig. 1. Extending longitudinally of the bar is a channel 14 opening into one of the side faces of the bar and cutting across the vertical slots as shown.

15 indicates a stop shown here as being made from sheet metal, whose lower end is bifurcated to provide legs 16 which straddle the bar, and which are spaced apart to permit said legs to slidingly enter the vertical slots 13 when straddling the bar. The upper portion of the stop is preferably shaped in the form of a handle or grasping portion here shown as a ring 17.

Located in the channel 14 is a longitudinally extending member or rod 18 whose diameter in cross section is less than the depth of the said channel. A plurality of arched springs 19 normally urge the member or rod 18 outwardly beyond the bottom of the vertical slots 13. Confining means shown as set screws 20 whose heads overlie the ends of the rod and whose stems are in threaded engagement with the bar prevent undue outward displacement of the rod.

The springs 19 are suitably seated in the channel 14 and prevented from lateral displacement by the projections 21 entering the notches 22 of the wall of said channel.

The stops 15 are each provided with a notch 23, preferably in each of the legs 16, said notches facing inwardly as shown best in Fig. 5. Each notch, by preference, is provided with oppositely beveled faces 24 sloping in opposite direction.

In practice, the stop is caused to straddle the bar 7, the legs 16 entering the vertical slots 13. The lower portion 25 of the legs 16 are slightly beveled so that the downward movement of the stop will gradually press the rod 18 inwardly until the notch 23 comes in alinement with the rod 18 when the springs are free to urge the said rod 18 outwardly into engagement with said notch. The stop 15 is now in its lowermost position, the shoulders 26 engaging with the upper face of the bar 7.

It will be seen that the rod 18 will hold a stop 15 placed in any letter-space position on the bar 7 or will hold a plurality of such stops collectively. Also that when withdrawing or inserting a stop at one end of the bar 7, only one of the springs 19 need yield materially, so that the remaining stops will be held securely in position. The construction described is simple in that a single element, the rod 18, will control all the stops and no additional elements need be carried by each stop to lock it in position on the bar 7. It will, however, be understood that the rod 18 need not necessarily be a continuous member but may be made up in two or more sections individually spring-pressed by a requisite number of springs to effect their proper engagement with the stops.

I claim:

1. A tabular bar adapted to receive a tabular stop and having a longitudinal channel, a tabular stop, and yielding means, carried by the bar and located within the channel, admitting of the mounting of a stop in any letter space position and automatically locking said stop against accidental displacement when in its mounted position on the bar.

2. A tabular bar adapted to receive a tabular stop in any letter space position and having a longitudinal channel, a tabular stop, and yielding means, for locking the stop against accidental displacement located within the channel and automatically actuated by the mounting and withdrawal of the stop.

3. A tabular bar adapted to receive a tabular stop in any letter space position, a plurality of tabular stops, and yielding means, carried by the bar, for collectively locking the stops against accidental displacement and automatically actuated by the mounting and withdrawal of any stop.

4. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a spring-pressed rod extending longitudinally through said channel, and a tabular stop bifurcated at its lower end to straddle said bar and having a notch in one of its legs facing inwardly toward the bar to permit the spring-pressed rod to enter the same when the stop straddles the bar.

5. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a spring-pressed rod extending longitudinally through said channel, and a tabular stop bifurcated at its lower end to straddle said bar and having a notch provided with substantially beveled faces sloping in opposite directions in one of its legs facing inwardly toward the bar to permit the spring-pressed rod to enter the same when the stop straddles the bar.

6. A tabular bar having vertical slots in its side faces spaced letter distances apart for the reception of tabular stops and having further a longitudinal channel in one of its side faces, a spring-pressed member extending longitudinally through said channel normally urged outwardly beyond the plane of the bottom of the vertical slots, means for preventing undue outward displacement of said longitudinal member, and a tabular stop adapted to straddle said bar and to be engaged by said longitudinally extending member.

7. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a tabular stop adapted to straddle said bar, a longitudinally extending member contained within said channel for holding the stop against displacement, and a plurality of springs urging said member outwardly to permit one portion of said member to yield inwardly into the channel substantially independently of the remainder of said member.

8. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a tabular stop adapted to straddle said bar, a longitudinally extending member contained within said channel for holding the stop against displacement, and a plurality of arched springs urging said member outwardly to permit one portion of said member to yield inwardly into the channel substantially independently of the remainder of said member.

9. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a longitudinally extending member contained within said channel and of smaller diameter than the depth of the channel whereby it is free to assume an oblique position in said channel, a plurality of springs for urging said member outwardly and to permit of a greater inward displacement of said member at one point than at another point, and tabular stops adapted to straddle said bar and to be held against displacement by said member.

10. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a longitudinally extending member contained within said channel and of smaller diameter than the depth of the channel whereby it is free to assume an oblique position in said channel, a plurality of springs for urging said member outwardly and to permit of a greater inward displacement of said member at one point than at another point, and tabular stops adapted to straddle said bar and to be held against displacement by said member.

11. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a longitudinally extending member contained within said channel and of smaller diameter than the depth of the channel whereby it is free to assume an oblique position in said channel, a plurality of arched springs for urging said member outwardly and to permit of a greater inward displacement of said member at one point than at another point, and tabular stops adapted to straddle said bar and to be held against displacement by said member.

12. A tabular bar adapted to receive a tabular stop in any letter-space position and having a longitudinal channel in one of its side faces, a longitudinally extending member contained within said channel and of smaller diameter than the depth of the channel whereby it is free to assume an oblique position in said channel, a plurality of arched springs for urging said member outwardly and to permit of a greater inward displacement of said member at one point than at another point, tabular stops adapted to straddle said bar and to be held against displacement by said member, and means for preventing lateral displacement of the springs.

Signed at New York city, in the county of New York and State of New York, this 23d day of April, 1917.

LÉWIS C. MYERS.