

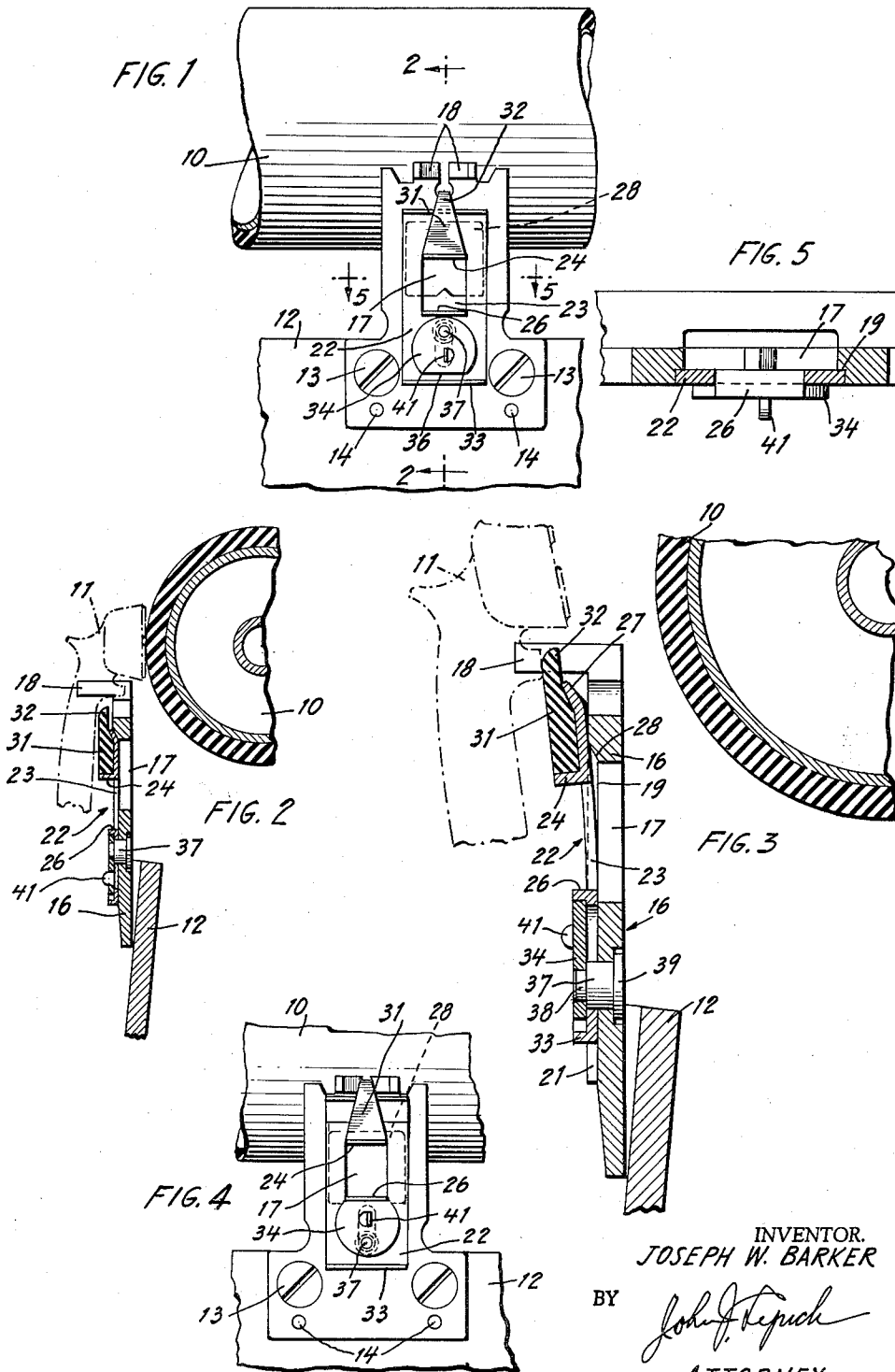
Jan. 30, 1962

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3,018,871

TYPING BLOCK-OUT MECHANISM FOR WRITING MACHINES

Filed Aug. 18, 1959



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3,018,871 TYPING BLOCK-OUT MECHANISM FOR WRITING MACHINES

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Filed Aug. 18, 1959, Ser. No. 834,548
8 Claims. (Cl. 197—180)

This invention relates to a blocking means for preventing printing by the type bars of a business machine without affecting the normal letter feed operation of the carriage.

A particular object of the invention is to provide a buffer, adjacent the type guide of a typewriter or the like, which can be moved to position to block the printing action of the type head by being moved into the path of the type bar.

A further object of the invention is to provide a typing block-out means that can be adjusted by the typist for the purpose of allowing her to make use of the key levers as in ordinary typing for planning typed matter so that it can be properly centered on the sheet.

Another object of the invention is to provide a device of the character set forth that can be made as a separate unit, for application as a combination type bar guide and printing block-out means, and at small cost.

Formerly the typist was accustomed to operate the space for every type character and space between words which was a time consuming operation and often led to mistakes due to miscounting the number of letters in a word or spaces between words and it is a further object of the invention to eliminate the necessity for manipulation of the space bar and hence save time in the planning of the work to be done.

Other objects and structural details of the invention will be apparent from the following description, when read in conjunction with the accompanying drawing, wherein:

FIGURE 1 is a view in elevation of the printing area of a typewriter including part of the platen and the type bar guide,

FIGURE 2 is a vertical section taken on the line 2—2 of FIGURE 1 showing the type bar blocking means in inoperative position,

FIGURE 3 is an enlarged view similar to FIGURE 2 showing the blocking means in operative position,

FIGURE 4 is a view similar to FIGURE 1 showing the parts as they would appear in the operative position of FIGURE 3, and

FIGURE 5 is an enlarged cross section taken on the line 5—5 of FIGURE 1 showing the structure of the parts.

Referring to the drawings in detail 10 indicates the platen of a writing machine, such as a typewriter, for receiving the printing impact of a type bar 11, in the well known manner. The type bars 11 are pivotally mounted in a segment 12, the upper edge only of which is shown and to which is secured, as by the screws 13 and aligning pins 14, a type bar guide 16 having a central opening 17 and spaced type bar guide ears 18 projecting forwardly from the upper end of said type guide 16 and having opposed inside faces flared downwardly and outwardly. The face of the guide is channeled to provide a seat 19 bounded by the vertical walls 21 spaced apart to confine a blocking slide 22 in vertical movement.

The blocking slide 22 consists of a piece of metal or other suitable material shaped to provide an aperture 23 out of which may be formed upper and lower intermediate flanges 24 and 26, respectively, the latter being referred to as a lift flange.

The upper flanged top edge of the slide is flared outwardly to provide a cam end 27 which coacts with a

cam bevel 28 extending across the upper edge of the aperture 23 so that as the slide is elevated it will flex enough so that it will be frictionally held in its position of adjustment and so that its upper end will move outwardly or to the left in FIGURE 3 to position the upper tapered end of a rubber or composition buffer block 31 in between the ears 18 of the guide to provide a yieldable resistance to the positioning of the block at its upper end between and in contact with the ears 18 and to provide a bumper for the upper end of the type bar so that the head of the latter will not strike the platen.

In accordance with one of the objects of the invention, the printing movement of the type bar will be interrupted or blocked at a position as close to the platen as will make it possible for the type bar to actuate the letter spaced mechanism which is done by having a projection adjacent the heel of the type bar operate an arcuate bail common to all of the type bars, and which is so well known as to need no illustration. The typist can thus letter space the carriage, without typing, for the purpose of centering headings or planning other typing layouts that require the counting of letter spaces before the typing is to be done. The rubber buffer 31 is cemented or otherwise secured to the upper portion of the slide 22 and has a tapered tongue 32 projecting beyond the upper edge of the slide to fit between and in contact with the ears 18 of the guide and to provide for rebound action of the type bar on its return stroke.

The blocking slide 22 is flanged along its bottom edge as at 33 to provide a lowering lip which along with the lower intermediate light flange 26 cooperates with an eccentric cam 34 when the slide is to be raised and lowered. The eccentric cam 34 has a flat dwell 36 constituting a detent for supporting the slide in typing block-out position without attention on the part of the operator. The elastic property of the buffer 31 in its resistance afforded by the tongue 32 being flexibly crowded into contact with the flared inner faces of the guide ears 18 will yieldably maintain the flange 26 in contact with the dwell 36 and will yieldably resist any turning movement of the cam 34 so that the vibration of type bar action will not release the slide from block-out position. It will be evident that in the rotation of the cam to the FIGURE 4 position the rubber buffer block will be first compressed as the periphery of the cam wipes the flange 24 and thereafter will expand to cause the flange to seat and be yieldably held on the dwell 36 of the cam.

The slide operating cam 34 is mounted for eccentric rotation on a stud 37 riveted as at 38 to the cam and held by a head 39 in the type bar guide 16. The cam 34 is provided with a projection or nub 41 through which the cam 34 can be manipulated by a pencil or other pointed object to raise and lower the slide 22.

While I have shown and described what I consider to be the best embodiment of my invention, it is obvious that changes in form could be made without departing from the spirit of the invention, and I therefore do not limit myself to the exact form herein shown and described nor to anything less than the whole of my invention as hereinbefore set forth and as hereinafter claimed.

What I claim is:

1. The combination with a guide for the type bars of a writing machine including ear portions having flared inner faces bounding an opening in said guide; of a slide mounted on said guide, resilient buffer means on said said slide, means for mounting the slide on the guide for vertical movement of the buffer means into the opening between said ear portions of the guide and into yieldable contact with the flared inner faces of said ear portions for controlling the printing action of said type bars, and cam means for moving said slide and detaining

the same in raised position by the yielding action of said buffer means.

2. A guide for the type bars of a writing machine, said guide including spaced ears and a seat portion, a slide in said seat portion, resilient buffer means on the slide, and means for moving the slide vertically to move the buffer means into the space between said ears and into yieldable contact therewith to control the typing operation of said type bars, said slide moving means having a detent dwell for retaining said slide in its vertically moved position.

3. A combination guide and typing block-out means for a writing machine including a guide member having spaced ears and a seat portion, a slide movable on said seat portion, elastic type bar buffer means on said slide adapted to be positioned against and between said ears to intercept the type bars in movement toward the printing point and means for moving said slide into intercepting position against the yieldable resistance of said buffer means.

4. In a writing machine, the combination with printing type bars, a carriage movement controlled by movement of said type bars and type bar guide means adjacent a platen; of a slide, means for mounting said slide in the guide means, resilient buffer means on the slide movable into the type bar guide means to prevent the type bars from striking the platen but allowing control of said carriage movement, cam means for adjusting said slide to move said buffer means into the guide means, and detent means on said cam means against which said slide is yieldably urged by the resilience of said buffer means.

5. The combination set forth in claim 4, wherein said detent means comprises a flat edge on said cam means for detachable engagement with said slide.

6. Type blocking means for a printing mechanism, including type bars, a carriage escapement means operated by the type bars and a guide for said type bars, said blocking means including a slide presenting verti-

cally spaced flanges, means for mounting the slide in the guide, resilient bumper means on the slide, and means engaging said flanges for shifting the slide in opposite directions, the movement of the slide in one of said directions being effective to bring said bumper means against the guide and into the path of said type bars for blocking printing action thereof after operation of said escapement means, said bumper means reacting against said guide for yieldably holding said slide against said shifting means.

7. A type blocking means of the character set forth in claim 6 in which said slide shifting means includes eccentrically pivoted cam means for engaging said vertically spaced flanges, said cam means being shaped to provide a dwell portion for holding the slide in one position of adjustment, and an extension on the cam means for manual manipulation thereof.

8. Type blocking means for a printing mechanism, including type bars, a carriage escapement means actuated by said type bars and a guide for said type bars having seat and cam portions therein, said blocking means including a slide adapted to engage said seat and cam portions, bumper means on the slide, and means for shifting the slide to bring said bumper means into the path of said type bars for blocking the printing action thereof after actuation of said escapement means, said shifting means including spaced flanges on the slide, cam means presenting a dwell portion and positioned between said flanges, pivot means for mounting the slide and cam means on the guide, and extension means on said cam means for facilitating manual operation thereof to shift said slide, said dwell portion constituting a detent means for engagement with one of said flanges to hold the slide in a shifted position.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,018,871

January 30, 1962

Joseph W. Barker

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

In the heading to the drawings, line 1, name of inventor, for "J. W. Baker" read -- J. W. Barker --.

Signed and sealed this 19th day of June 1962.

(SEAL)

Attest:

ERNEST W. SWIDER
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