April 21, 1931. J. BRICKEN 1,801,484

KEYBOARD FOR CALCULATING MACHINES

Filed Feb. 26, 1930

Fig. 1.

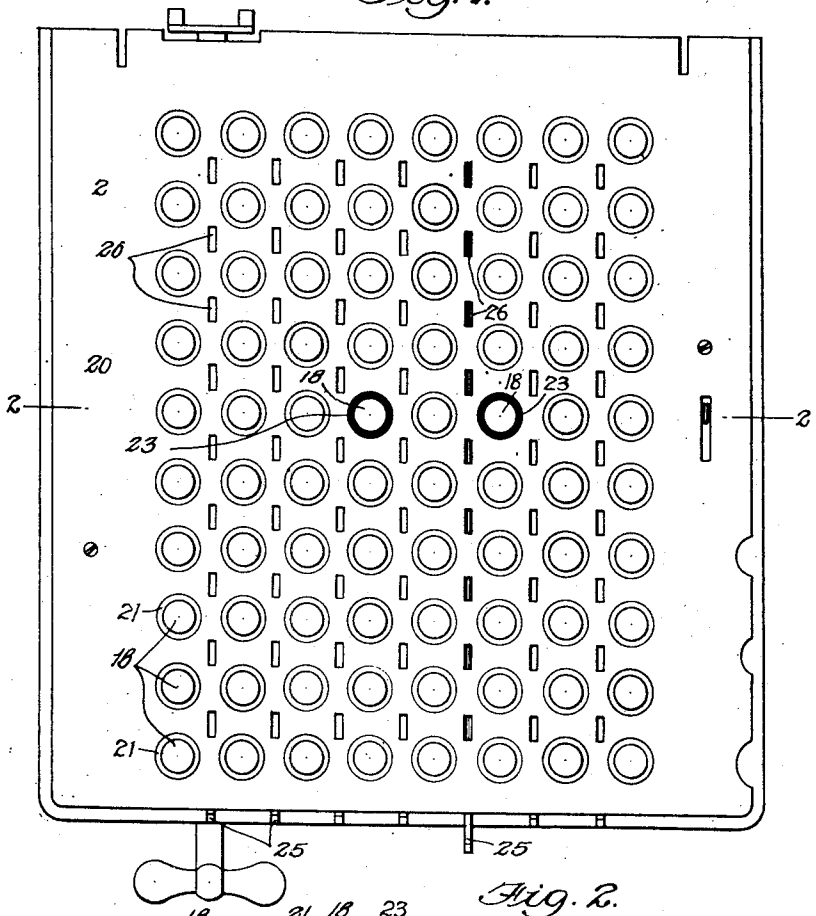


Fig. 2.

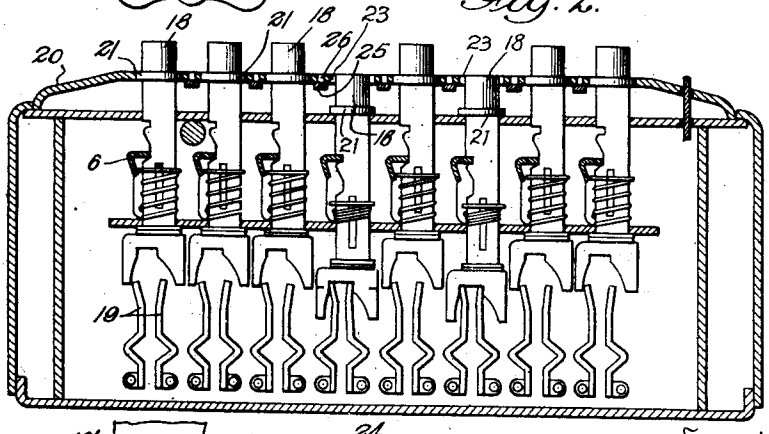


Fig. 3.

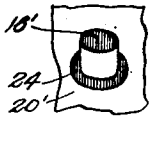
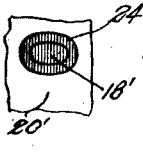


Fig. 4.



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UNITED STATES PATENT OFFICE

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KEYBOARD FOR CALCULATING MACHINES

Application filed February 26, 1930. Serial No. 431,549.

The invention has relation to keyboards for calculating machines of the key set type, having for an object to provide the keyboard plate with a normally inconspicuous area around each key head, said area becoming conspicuous when a key is depressed, so that the operator may determine at a glance the amount set in the keyboard.

The invention consists in the novel construction and combinations of parts as set forth in the appended claims.

In the accompanying drawings illustrating embodiments of the invention:

Figure 1 is a plan view of a keyboard wherein certain of the keys are shown as depressed or set and certain of the decimal markers are shown as adjusted.

Fig. 2 is a transverse vertical section of the same.

Fig. 3 is a detail fragmentary perspective view of a modification showing a key raised.

Fig. 4 is a similar view showing the key depressed.

In these drawings the invention is shown as applied for instance to the well known Monroe calculating machine and the numeral 18 designates depressible keys provided with lower cam ends adapted to actuate rock bars 19 to adjust differential selector gears, (not shown) the stems of said keys having upper and lower notches, the upper of which are adapted to be engaged by lock bars 6 to hold the keys in depressed or set position, subject to release upon retraction of said lock bars. The keyboard of the machine is provided with an upper plate 20, which is colored white, or other light color, and the heads of the keys 18 are colored to correspond with the keyboard, said heads being provided at their lower ends with annular collars 21, which are also colored white, said collars normally or in raised positions of the keys, fitting in openings of and being flush with the upper white-colored keyboard plate and merging in color therewith.

When a key is depressed, the annular white-colored collar 21 thereof will move downwardly below said upper keyboard plate out of sight, and annular openings 23 will be left around the light-colored top face of the depressed key, between the outer circumferential surface thereof and the inner circumferential edge of the opening 23, said annular openings showing up dark or in shadow. That is to say, when a key is depressed, a dark ring will show around the button or head thereof, making the depressed key quite conspicuous. As a key is depressed, the head thereof will assume a position level with the top of the upper white-colored keyboard plate, and being caused to stand out in contrast to said dark ring, the usual numerical or other marking of the key head will be more clearly visible so that it will not be necessary to refer to adjacent keys to determine the value of the key depressed.

A modified form of the invention is shown in Figures 4 and 5, wherein the key heads are not provided with collars 21, said heads being colored red, or other color contrasting with the keyboard plate, upon their top faces, and colored white or other color corresponding to that of the keyboard plate upon the cylindrical side portions thereof, said key heads being of a diameter which is the same as that of the openings of the upper keyboard plate. In this modification, a red circle 24 is painted around the opening of the upper keyboard plate wherein each key head fits and works, so that normally said red circle will appear in contrast to the white side portion of said head, but when a key is depressed, the red-colored top surface thereof will merge with the red circle around said opening, this also making the depressed key conspicuous.

I claim:

1. In a key-set calculating machine, having a colored keyboard plate, depressible keys, and means for holding said keys in depressed position with the tops of the key heads substantially in the plane of the upper surface of said plate; the key heads having portions colored similarly to said plate and normally visually merging therewith, said plate when a key is depressed being adapted to conceal the normally merging portion of the key heads, and said plate when a key is depressed having around the key head a conspicuous area visually distinguished from the main portion of the keyboard plate.

2. In a key-set calculating machine having a colored keyboard plate provided with apertures, depressible keys working in said apertures, and means for holding the keys in depressed position with the tops of the key heads substantially in the plane of the upper surface of said plate; the key heads having each a lower collar of the same color as that of said plate and normally registering with said apertures and upon depression of a key being located below the plane of and concealed by said plate to show the aperture as a dark ring around the head of the key and render the depressed key conspicuous.

3. In a key-set calculating machine having a colored keyboard plate, depressible keys, and means for holding said keys in depressed position with the tops of the key heads substantially in the plane of the upper surface of said plate; the key heads having side portions colored similarly to said plate and normally visually merging therewith, said plate when a key is depressed being adapted to conceal the normally merging side portion of the key head, and said plate when a key is depressed having around the key head a conspicuous ring of a color contrasting that of said keyboard plate.

In testimony whereof I affix my signature.

JOHN BRICKEN.