

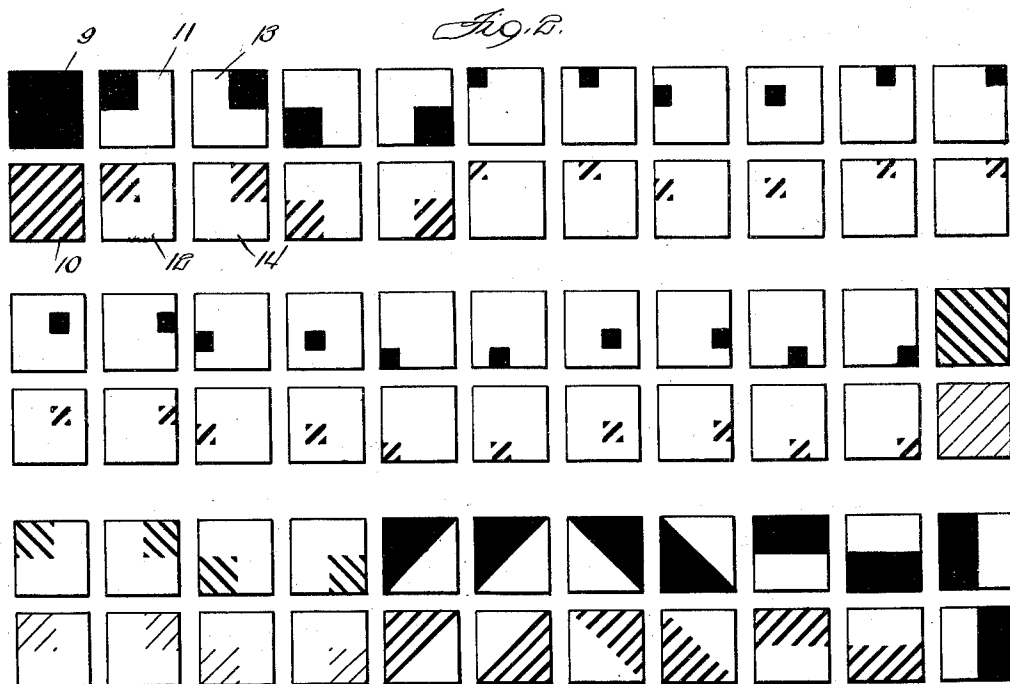
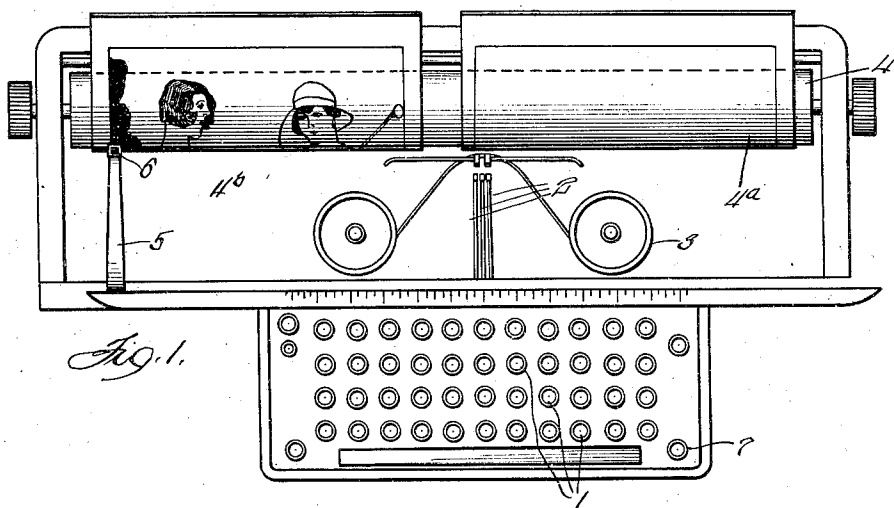
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PICTURE COPYING MACHINE

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PICTURE-COPYING MACHINE

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My invention relates to picture copying machines.

One of the objects of my invention is to provide an improved picture copying machine having key controlled hammers or the like for applying color to the work sheet and having provisions for automatically outlining successive contiguous portions of the copy sheet as the color applying hammers are operated.

Further objects will appear from the description and claims.

In the drawings in which my invention is illustrated,

Figure 1 is a somewhat diagrammatic view of a picture making machine, showing the holder for the work sheet and the copy sheet and the means for outlining successive contiguous portions of the copy sheet.

Fig. 2 is a view showing a design for the type faces of the hammers which I have found satisfactory.

Referring to the drawings in detail, and first particularly to Fig. 1, the construction shown comprises a key-board having a plurality of manually operable keys 1 similar to the arrangement of keys on a typewriter for controlling the operation of the color applying hammers 2 which also may be similar to the hammers of a typewriting machine, a ribbon feeding mechanism 3 which may be of any usual or suitable type, a rotatable longitudinally shiftable platen 4 on which the work sheet 4^a and copy sheet 4^b may be mounted, and a framing or outlining finger 5 having a rectangular sight opening 6 there-through for framing successive contiguous portions of the copy sheet as the platen is automatically shifted longitudinally step by step upon actuation of the keys.

The mechanism by which the movement of the platen is effected may be similar to the mechanism used in the typewriter construction and need not be described in detail.

Referring to the type faces of the color applying hammers shown in Fig. 2, each hammer 2 may be provided with two type faces as in typewriter construction either one of which may be brought into operative position by means of a shift key 7. In the

machine which I have designed, each operation of one of the keys shifts the platen one-eighth of an inch laterally, and each step by step rotational movement of the platen shifts the work sheet and the copy sheet one-eighth of an inch longitudinally. Each type face is designed to take care of a space one-eighth inch square. The squares numbered 9 and 10 show the two type faces on one of the type hammers, the squares numbered 11 and 12 show the two type faces on another type hammer, the squares numbered 13 and 14 show a pair of type faces on another type hammer, etc. It will be noted the only difference between the two type faces on the same hammer is that on the upper one the coloring matter is applied in a solid block whereas in the lower one the coloring is applied in diagonal lines. In the type face No. 9 the entire square is covered solidly with coloring material. In type face No. 10 the entire square is covered with diagonal lines. In type face No. 11 the upper left hand quarter of the square is covered solidly and in type face No. 12 the upper left hand quarter is covered with diagonal lines.

By proper selection of the keys, color can be applied to any desired portion of the work sheet. In selecting the type face to be used the artist is guided by a study of that portion of the copy sheet which appears within the sight opening of the outlining finger. A little practice soon enables the artist to determine which type face will give the desired result.

The ribbon used may have various portions of its length formed of different colors so that by shifting the ribbon longitudinally any desired color may be brought opposite the type face so that any desired portion of the work sheet can be covered with any desired color.

While I have shown a design for the type faces which I have found satisfactory, it is obvious that other type faces might be devised which also might be satisfactory. For instance, it might be advisable to design a set which would reproduce accurately drawings done in charcoal. This can be done by slightly changing the type faces. Also, if

desired, the type faces, instead of reproducing the picture directly, might be provided with code letters or symbols and the resulting record made might be used for the code transmission of the picture by mail, wire, or radio and the picture might be reproduced by the receiver of the code transmitted, using a machine provided with suitable type faces which would give the desired picture reproduction when operated in accordance with the code used.

I am aware that it has heretofore been proposed to apply color to a work sheet by a mechanism controlled by manually selected keys, as in the British Patent No. 15,734, dated 1910.

While I have shown but one embodiment of my invention, it is obvious that it may be embodied in other forms.

I claim:

1. A picture copying machine comprising a plurality of manually operable keys, a plurality of type faces associated with said keys, respectively, and which, by successively and selectively operating the keys can be caused to make impressions to cover any desired portion of the work sheet, a feed mechanism for the work sheet for bringing successive contiguous portions of the work sheet into co-operative relation with the type faces, and means for framing successive contiguous portions of a picture to be copied as the keys are operated.

2. A picture copying machine comprising a plurality of manually operable keys, a plurality of type faces associated with said keys, respectively, and which, by successively and selectively operating the keys can be caused to make impressions to cover any desired portion of the work sheet, a rotatable longitudinally shiftable cylindrical platen on which both the work sheet and the picture to be copied are mounted, and mean for framing the successive contiguous portions of the picture to be copied as said platen is moved.

3. A picture copying machine comprising a plurality of manually operable keys, a plurality of type faces associated with said keys, respectively, and which, by successively and selectively operating the keys can be caused to make impressions on a work sheet corresponding to successive contiguous portions of the picture to be copied, a feed mechanism for the work sheet for bringing successive portions of the work sheet into co-operative relation with the type faces, and means for framing successive contiguous portions of a picture to be copied as the keys are operated.

4. A picture copying machine comprising a plurality of manually operable keys, a plurality of type faces associated with said keys, respectively, and which, by successively and selectively operating the keys can be caused to make impressions on a work sheet corre-

sponding to successive contiguous portions of the picture to be copied, a rotatable longitudinally shiftable cylindrical platen on which both the work sheet and the picture to be copied are mounted, and means for framing the successive contiguous portions of the picture to be copied as said platen is moved.

In witness whereof, I have hereunto subscribed my name.

WM. C. O'HARE.

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