L. K. FULLER.

Blanks for Organ Keys.

No. 162,467. Patented April 27, 1875.

FIG. 1.

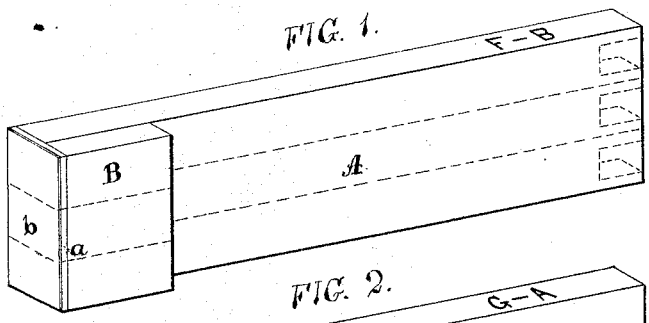


FIG. 2.

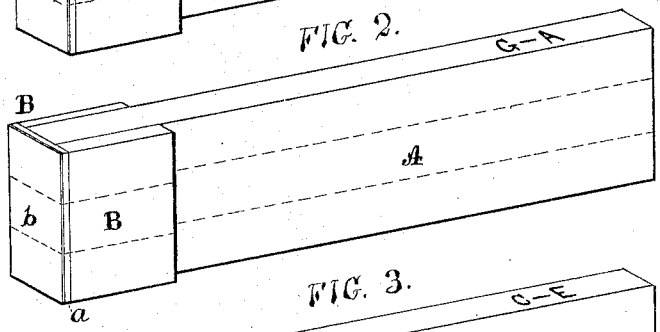


FIG. 3.

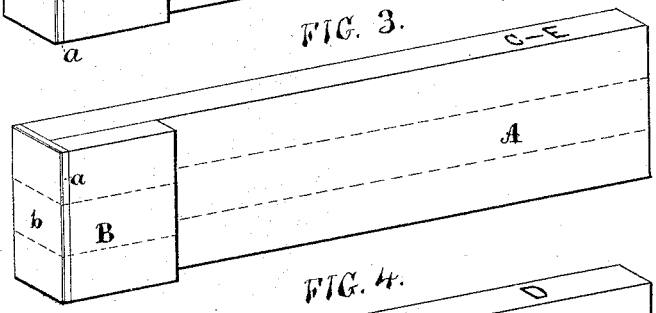


FIG. 4.

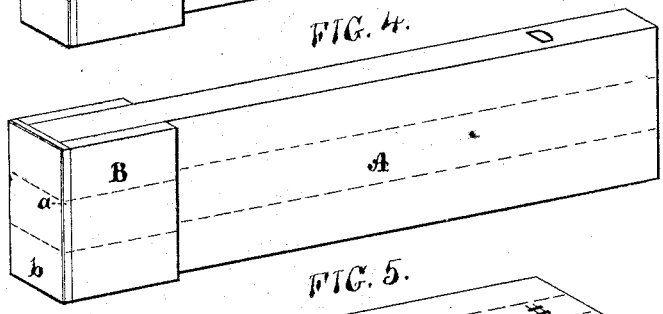
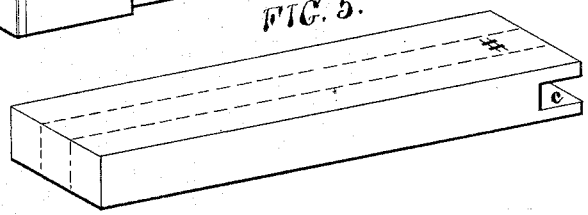


FIG. 5.



WITNESSES:

Arthur C. Fraser.

Wm E. Bullock.

INVENTOR:

Lewis K. Fuller,

per Burke & Fraser

attorneys.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

LEVI K. FULLER, OF BRATTLEBOROUGH, VERMONT, ASSIGNOR TO J. ESTEY & CO., OF SAME PLACE.

IMPROVEMENT IN BLANKS FOR ORGAN-KEYS.

Specification forming part of Letters Patent No. **162,467**, dated April 27, 1875; application filed January 27, 1875.

To all whom it may concern:

Be it known that I, LEVI K. FULLER, of Brattleborough, in the county of Windham and State of Vermont, have invented certain Improvements in Blanks for Keys of Organs, and similar Musical Instruments, (and assigned the same to J. ESTEY & CO., of the same place,) of which the following is a specification:

In the present state of the art, the keys of organs, melodeons, and similar musical instruments are made by marking out the entire manual or set of keys, used in the instrument—say five octaves of sixty-one keys—on a board of suitable length, breadth, and thickness, then mortising through at the ends of the sharps, or black keys, and sawing in from opposite sides to these mortises, thus separating the individual keys. Each key is numbered consecutively, beginning at the end of the key-board, and they are not interchangeable in different instruments, nor even in adjacent octaves of the same instruments. The kerf left by the saw gives sufficient space between the keys.

My invention relates to a method of constructing blanks from which to cut the keys, each blank representing a different form of key, and particularly adapted to the production of interchangeable keys.

The important features of my invention consist in the peculiar form and construction of these blanks, and the method of making the keys therefrom, which I will now describe.

A blank may be made for each and every key in the board; but I prefer to so space the keys that only five different blanks will be needed, as will be explained.

In the drawings, Figures 1, 2, 3, and 4 are perspective views of the blanks used for the white keys, with the letters marked thereon near the rear end, denoting the particular note or notes in the music scale for which they furnish keys. Fig. 5 is a perspective view of the blank used for the black keys, or sharps, which may all be cut from one blank.

In making all of the blanks, except that for the sharps, I take a board or piece of wood of the proper kind, of any convenient width. This board is cut to the right length for the keys, and dressed to the proper thickness for the back end of the same. This I call the body A A of the blank. To give the proper breadth to the front end of the keys beyond the sharps, I glue or otherwise attach to the side or sides of the body A, cheek pieces B B, dressed to the proper thickness and cut to the proper length. I then glue to the ends of the blanks the veneer *a* and ivory finishing-plate *b*, and the blank is complete. The keys are then cut from the blank to the proper thickness, as indicated by the dotted lines in the figures, and afterward grooved and bored for the guide and pivot pins, and top plated with ivory, in the usual manner.

It will be understood that only five different kinds of blanks are really needed, although each key in the key-board may be cut from a separate blank; but to enable me to use only five different kinds of blanks, it is necessary that the spacing of the keys should be especially adapted to this end.

The sharp blank shown in Fig. 5 is constructed in a somewhat different manner from the others. A board or piece of wood is dressed to the proper thickness of the keys, and cut to the proper length. It is then grooved at the rear end, as at *c* in the figure, and the blank is finished. The keys are cut from this blank, as indicated by the dotted lines, and mounted with ebony, in the usual manner.

When the keys are made from these blanks they will be interchangeable, letter for letter, and all the keys from one form of blank will be alike, as the parts are all accurately made by machinery.

The pin-holes may be bored in the blanks, or they may be bored in each key after it is cut from the blank.

It is evident that the blanks shown in Figs. 1, 2, 3, and 4 might be each cut from the solid wood, and separate cheek-pieces be thus entirely dispensed with; but this would be much more expensive than the mode of manufacture I have described and prefer. This, however, although an important feature as regards economy of manufacture, does not affect materially the general result; the blank manufactured as first described being equal in every respect to the latter.

It is not necessary that the veneer and ivory mounting be put on the end of the blank before the key is cut therefrom, as they may be put on each key separately; but I prefer, for convenience and economy in the manufacture, to follow the plan described.

Having thus described my invention, I claim—

1. As an improvement in the manufacture of keys for organs, pianos, and similar keyboard instruments, the process herein described, consisting essentially in forming the blank from which to construct such keys with its top and bottom faces corresponding in shape to the face of the keys, and of a depth to allow of two or more keys being cut therefrom, by dividing it in a plane parallel to the faces of the same, substantially as and for the purpose specified.

2. The method of constructing a key-blank for organs and similar instruments, by making the body of the blank A of the width desired for the rear end of the key, and securing the cheeks B B to the side or sides thereof, to give the proper width to the key at the front end, substantially in the manner shown, and for the purposes set forth.

3. The blank for the sharp or black keys, having a thickness equal to the thickness required in the key, and grooved, as at *c*, at the rear end, when constructed substantially in the manner shown, and for the purposes described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

LEVI K. FULLER.

Witnesses:

W. H. CHILDS,

EDWIN S. VOTEY.