

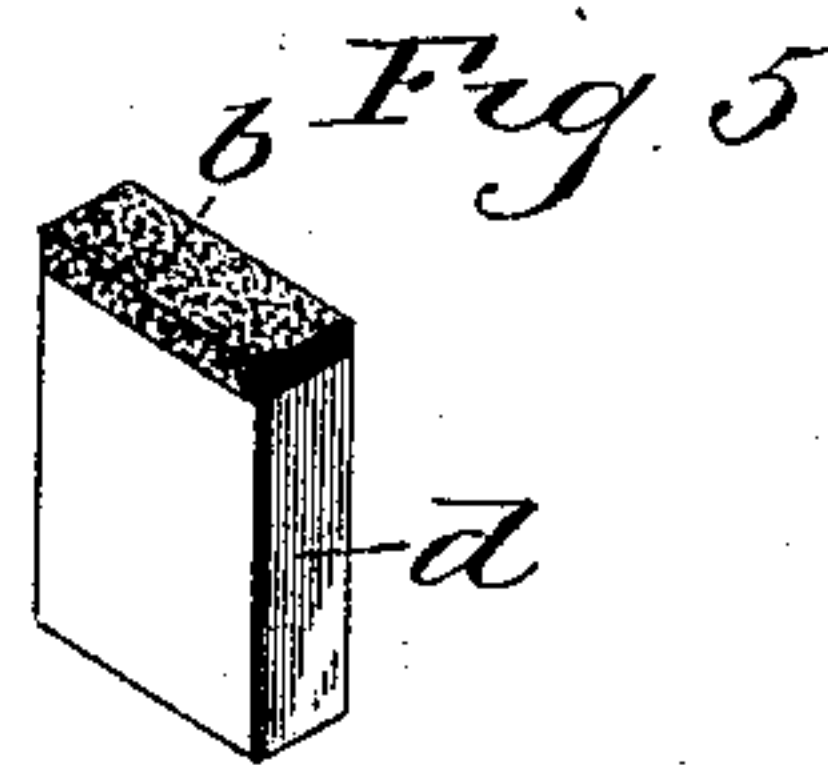
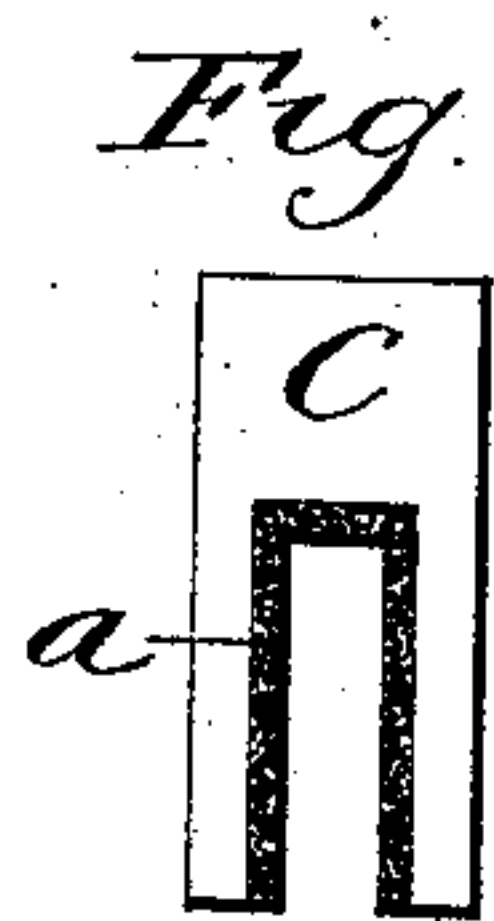
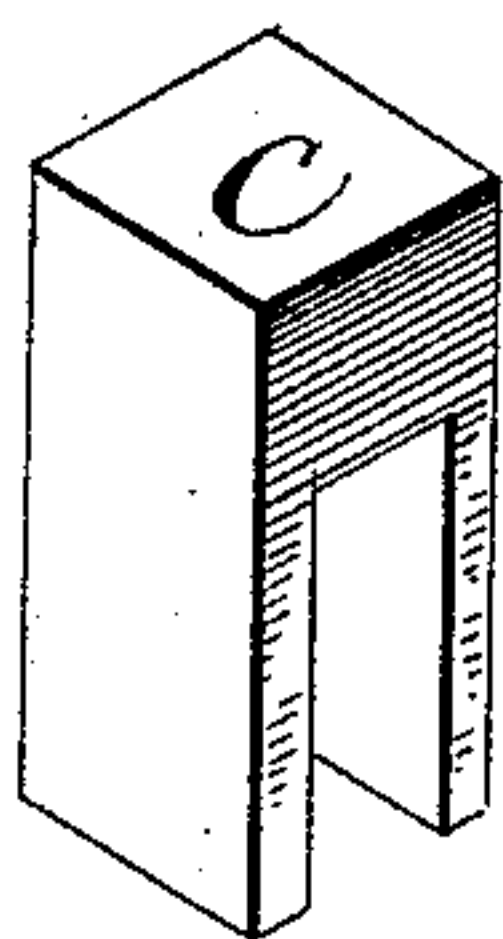
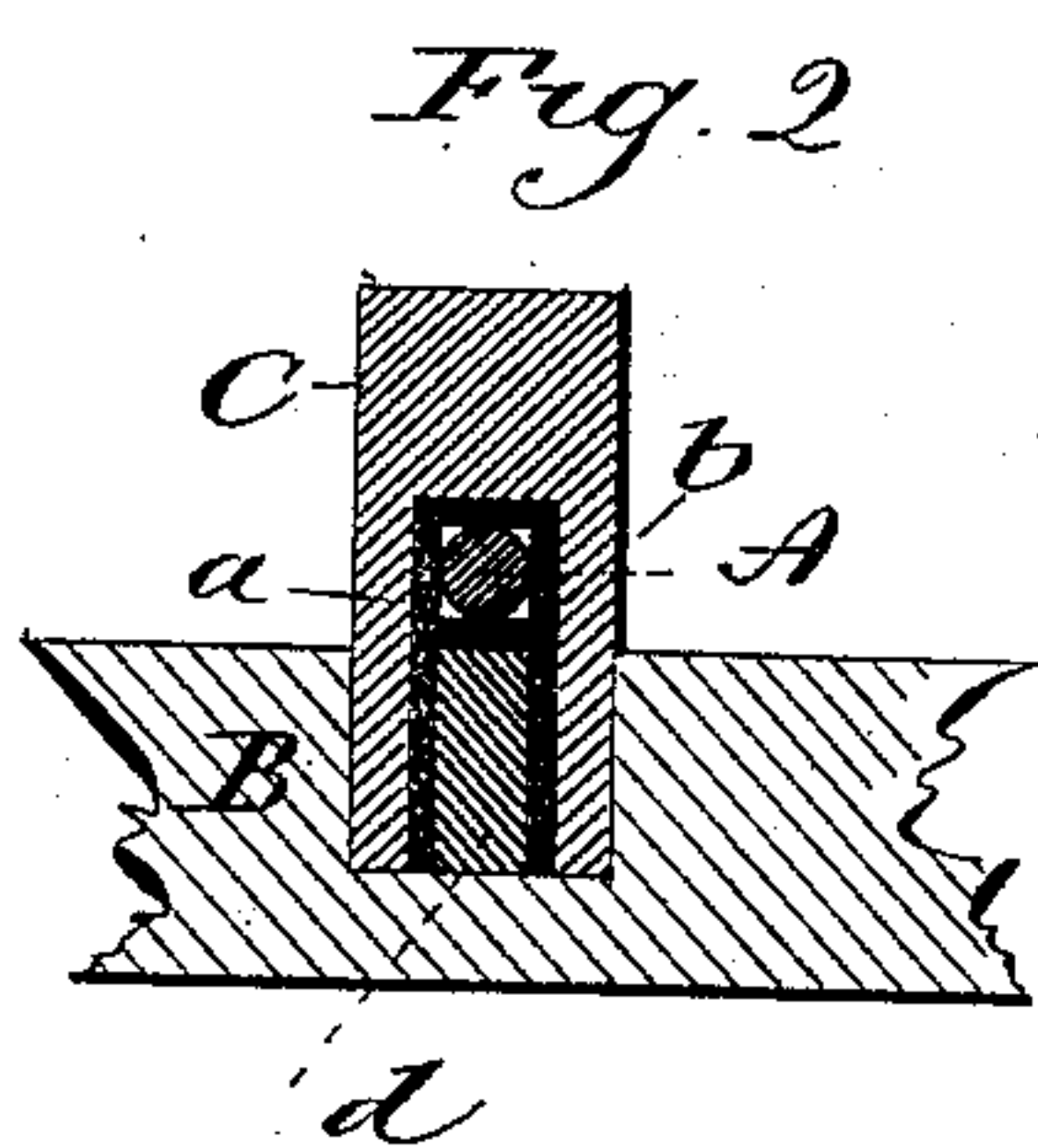
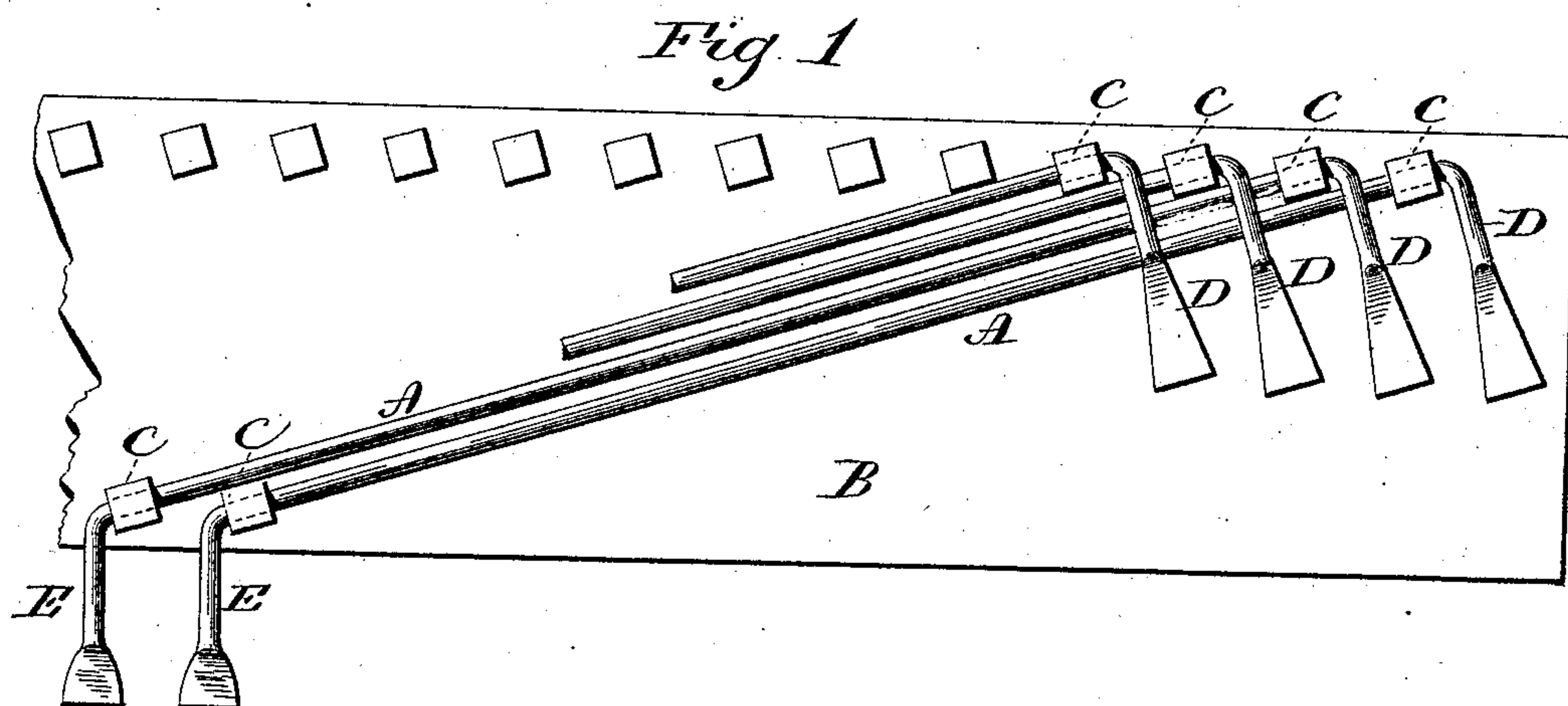
(No Model.)

F. PRITCHARD.

OCTAVE COUPLER.

No. 381,418.

Patented Apr. 17, 1888.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

FREDERICK PRITCHARD, OF MERIDEN, CONNECTICUT.

## OCTAVE-COUPLER.

SPECIFICATION forming part of Letters Patent No. 381,418, dated April 17, 1888.

Application filed December 20, 1887. Serial No. 253,481. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK PRITCHARD, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Octave-Couplers; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a plan view of a portion of the coupler-board, showing the coupler shafts and bearings; Fig. 2, a vertical section through one of the bearings enlarged; Fig. 3, a perspective view of the block C enlarged; Fig. 4, a face view of the block C, showing the lining; Fig. 5, a perspective view of the filling-block *d*, showing the non-metallic facing.

This invention relates to an improvement in that class of couplers for organs and instruments of like character, which consist of a series of parallel shafts arranged beneath the manual of the instrument, the said shafts having arms at each end, and extending an octave, so that the depression of the key in one octave will correspondingly operate upon the same note of the next octave.

This coupler is known as the "Wilcox" patent of January 26, 1869, and is too well known to require particular description in this application.

The object of my invention is to form bearings for the respective shafts which shall present non-metallic contact to the respective shafts, and which, while permitting a light and easy rotative movement of the shaft, avoids all noise or rattle from the coupler when in use; and it consists in bearings for the respective coupler-shafts, each made of a block of inverted-U shape, the interior of the block lined with a soft flexible material. The said blocks set over the respective shafts, the legs of the U extending each side of the shafts, and the space between the legs and the shafts filled to present a like soft flexible material to the shaft. The said blocks set into the coupler-board, and so as to form non-metallic bearings for the re-

spective shafts, as more fully hereinafter described.

A A represent several of the coupler-shafts as applied to the board B.

C C represent the bearings in which the shafts are supported. Each shaft is provided with an arm, D, at one end, and a similar arm, E, at the opposite end, the arm at the upper end being adapted to engage with the key of the upper octave, and the arm at the lower end to operate upon a corresponding note in the next octave below.

The bearings C are best made from a block of wood. These blocks are of inverted-U shape, as seen in Fig. 3, the width between the legs being somewhat greater than the diameter of the respective shafts. The interior surface of the block is lined with felt or other suitable non-metallic flexible material, as indicated at *a*, Fig. 4. The length of the opening in the block is considerably greater than the diameter of the respective shafts.

*d* represents a block, which is of a size to fill the space in the block C after the block C has been placed over the shafts. The inner end of this block *d* is covered with felt *b* or like non-metallic flexible material.

The blocks C are set over the respective shafts, and then the blocks *d* set between the legs, so as to bring the shafts to a bearing on the flexible material within the blocks C. The coupler-board is provided with a series of holes corresponding to the required position for the bearings for the shaft, these holes being adapted to receive the blocks C. The bearings, having been thus placed upon the respective shafts, are set into their respective places in the coupler-board B, as indicated in Fig. 1, and there secured by glue or otherwise. The bearings thus formed leave the several shafts free for the required rotative movement with very little friction, and yet held so firmly as to prevent any rattling or disturbance from the action of the couplers, and when once the bearings are set in the board there is no liability to displacement.

I claim—

The herein-described improvement in oc-



tave-couplers, consisting of the series of diagonal shafts, each shaft provided with arms at its two ends, combined with the coupler-board, and bearings for said shafts, each of  
5 said bearings consisting of an inverted-U-shaped block, C, lined with a non-metallic flexible material set over said shafts, and a block, d, presenting a non-metallic flexible

surface toward the shaft, and set within the open end of the block C, said bearings secured in the coupler-board, substantially as described.

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