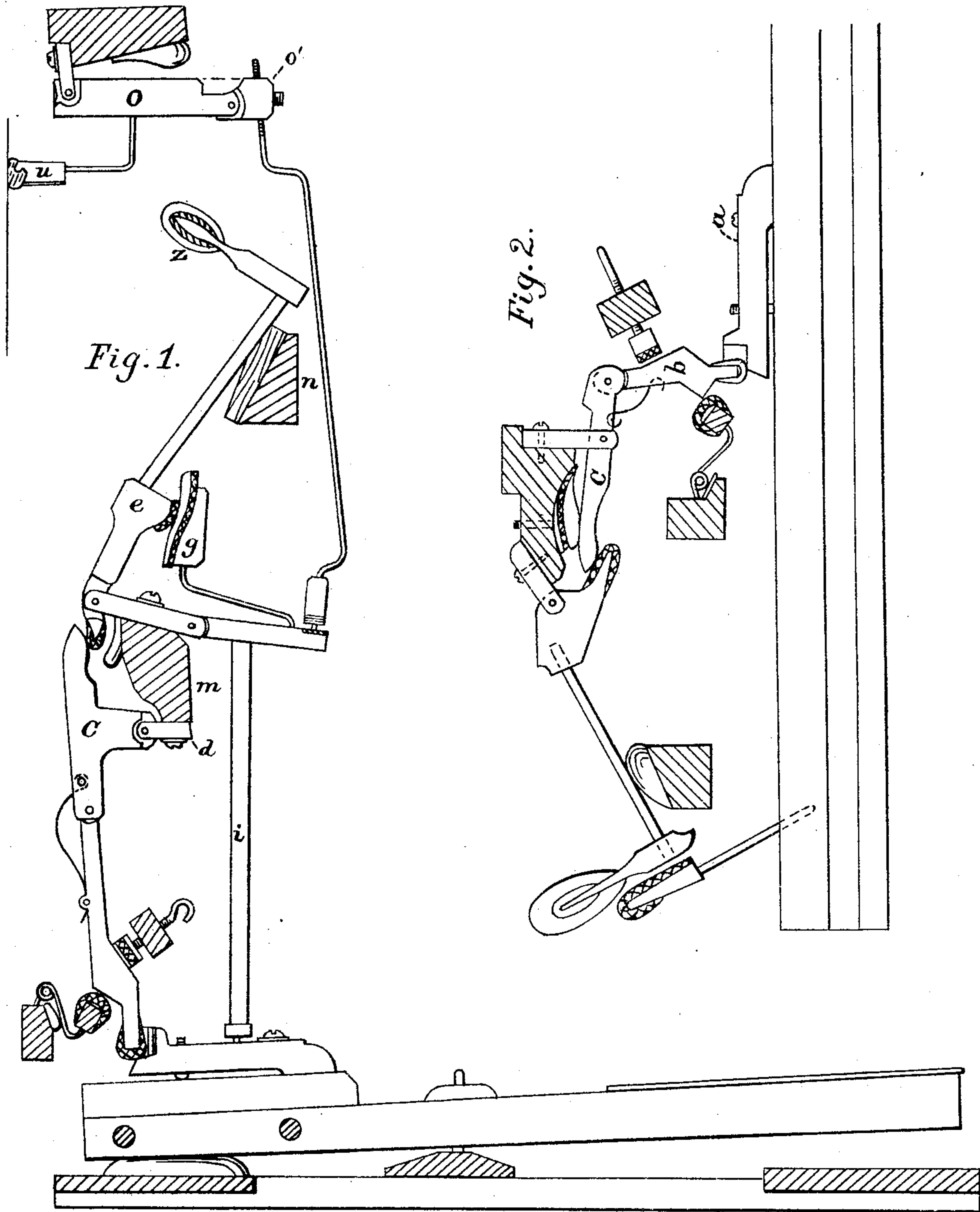


(No Model.)

C. ZIBULSKI,
Piano Action.

No. 243,481.

Patented June 28, 1881.



Witnesses :
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UNITED STATES PATENT OFFICE.

CHARLES ZIBULSKI, OF MUNICH, BAVARIA, GERMANY.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 243,481, dated June 28, 1881.

Application filed January 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ZIBULSKI, a subject of the King of Bavaria, residing at Munich, in the Kingdom of Bavaria, in the German Empire, have invented a new and useful Improvement in Mechanism for Piano-Fortes, of which the following is a specification.

My invention relates to improvements in mechanism or action for piano-fortes in which a suspended snapper acts upon the hammer under the axle of the hammer-butt; and the objects of my improvements are, first, to provide for vertical or upright piano-fortes the strength of tone requisite for horizontal pianos; and, second, to replace in horizontal pianos the complicated mechanism for repetition. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation showing the entire mechanism as applied to vertical piano-fortes. Fig. 2 shows the mechanism as applied to horizontal pianos.

Similar letters represent similar parts in all the figures.

The pushing-plate *a* is attached to the key *x* in the usual manner. The pusher or jack *b* is suspended from the snapper *c*, which is fixed to the frame *m* by means of the fulcrum *d*. By touching the key *x* the pusher *b*, and therefore with the snapper *c*, is raised and turned side-wise. This motion is transferred to the end of the hammer-butt *e* below its fulcrum *f*, and thereby the hammer-head *z* knocks on the string. Behind the hammer-butt *e* is the catch-block *g*, which by means of a bent piece of wire is attached to the cross-piece *h* of the lever *i*.

The lifting of the damper *u* is effected in the following manner: The lever *i*, which rests upon the pushing-plate *a*, bears on its upper end the cross-piece *h*. When the after end of the key *x* is raised the lever *i* and the cross-piece *h* are likewise raised. On the end of the cross-piece *h* the wire *n* is attached, which moves the lever *o*, and thereby draws back the damper *u* from the string. The upper end of rod *n* is screw-threaded and enters a correspondingly screw-tapped block, *o'*, which is hinged or swiveled to lever *o*. The said rod may be screwed in or out of said block to compensate for wear, bending, or changes due to raised or lowered temperature.

The modification for horizontal pianos shown in Fig. 2 differs only in the position of the parts *b* and *c*, which in this case are connected together at an angle.

I am aware that prior to my invention mechanism or action for piano-fortes has been made with suspended pushers, and therefore I do not claim this combination, broadly; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a piano-forte action, the combination of the pusher *b* and the snapper *c* with the hammer-butt *e* and the hammer fulcrum-bar *f*, all constructed and arranged to operate substantially as and for the purpose set forth.

2. In a piano-forte action, the combination of the pusher *b* and the snapper *c* with the hammer-butt *e*, the hammer fulcrum-bar *f*, pushing-plate *a*, lever *i*, cross-piece *h*, and catch-block *g*, substantially as set forth.

CHARLES ZIBULSKI.

Witnesses:

PHILIPP PFEIFF,
KARL ARNOLD.