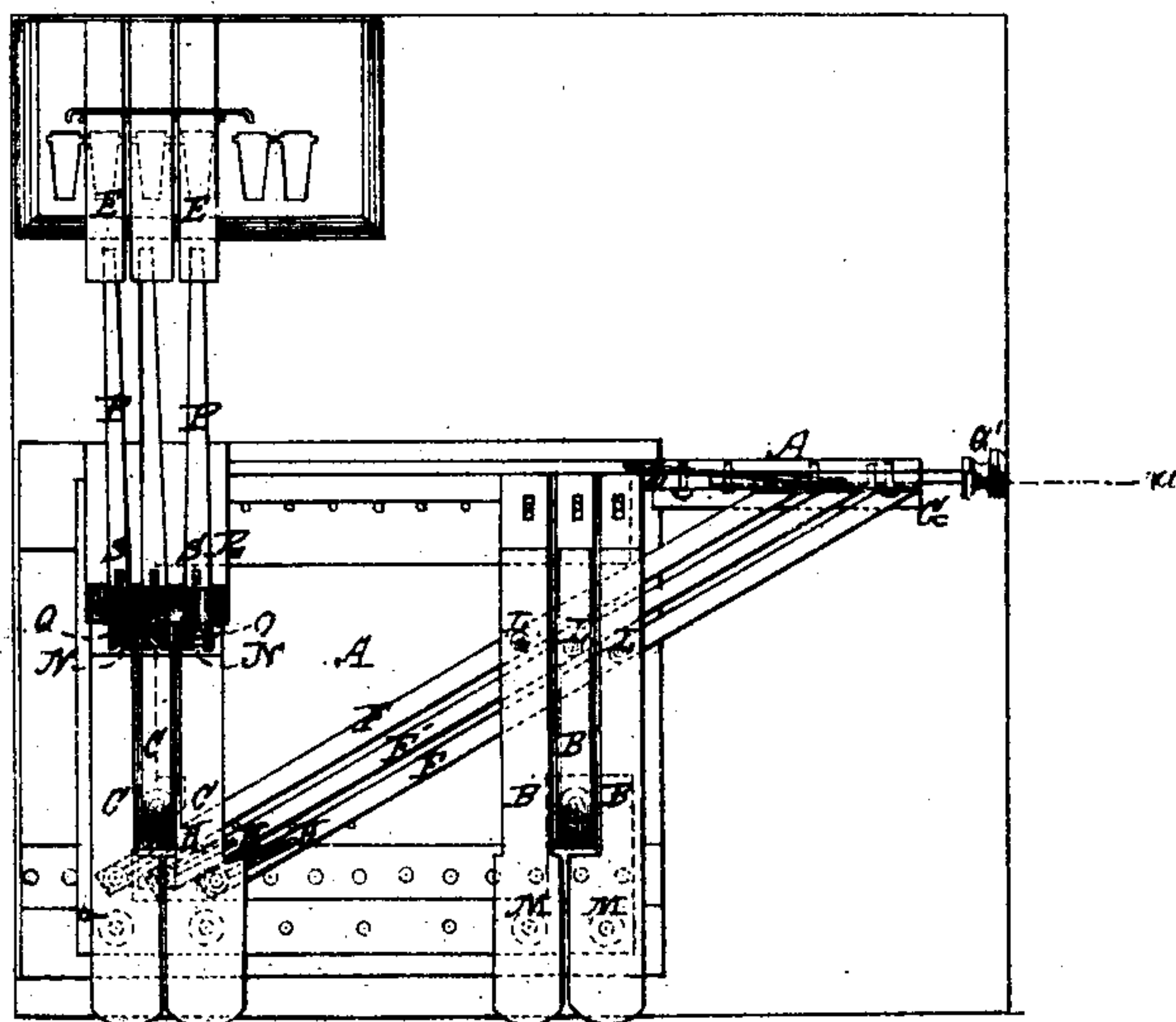


G. COOK.  
Reed-Organ Coupler.

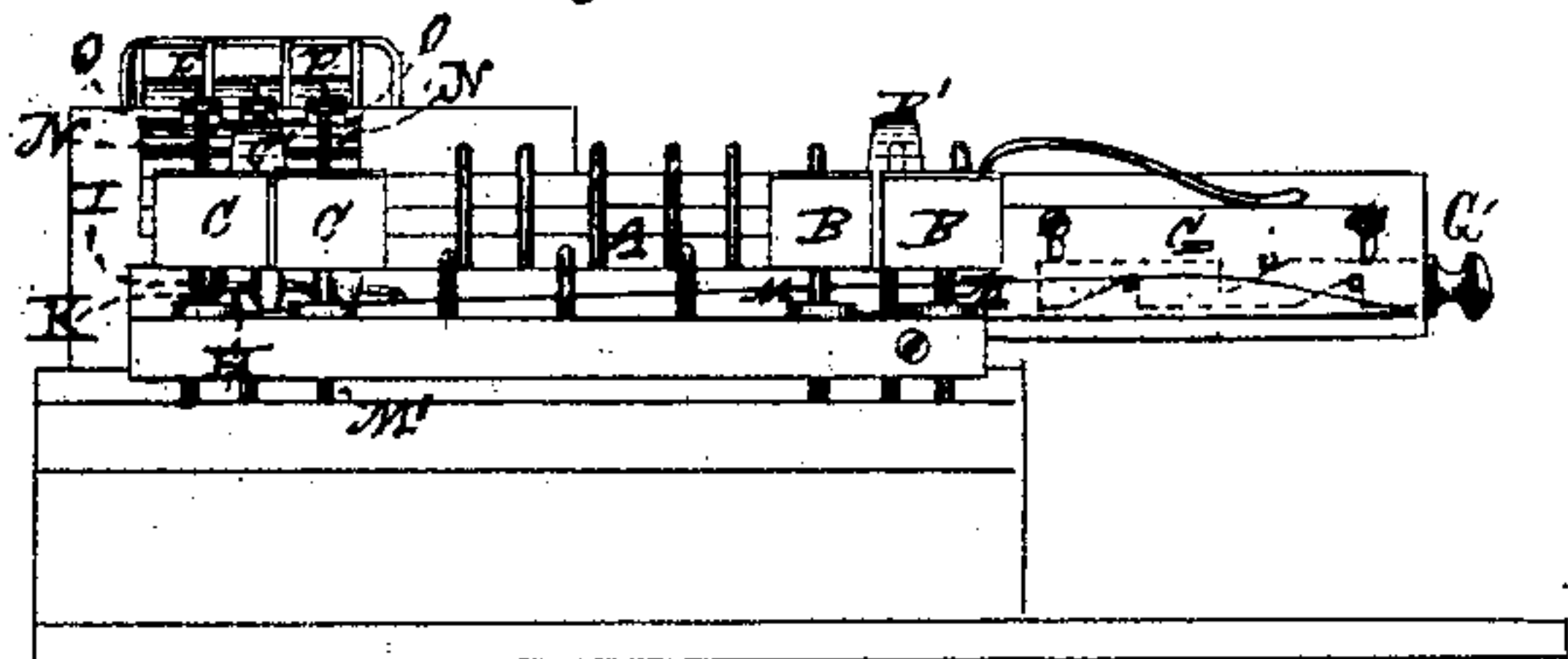
**No. 103,019.**

**Patented May 17, 1870.**

*Fig. 1.*



*Fig. 2:*



*Fig. 3.*

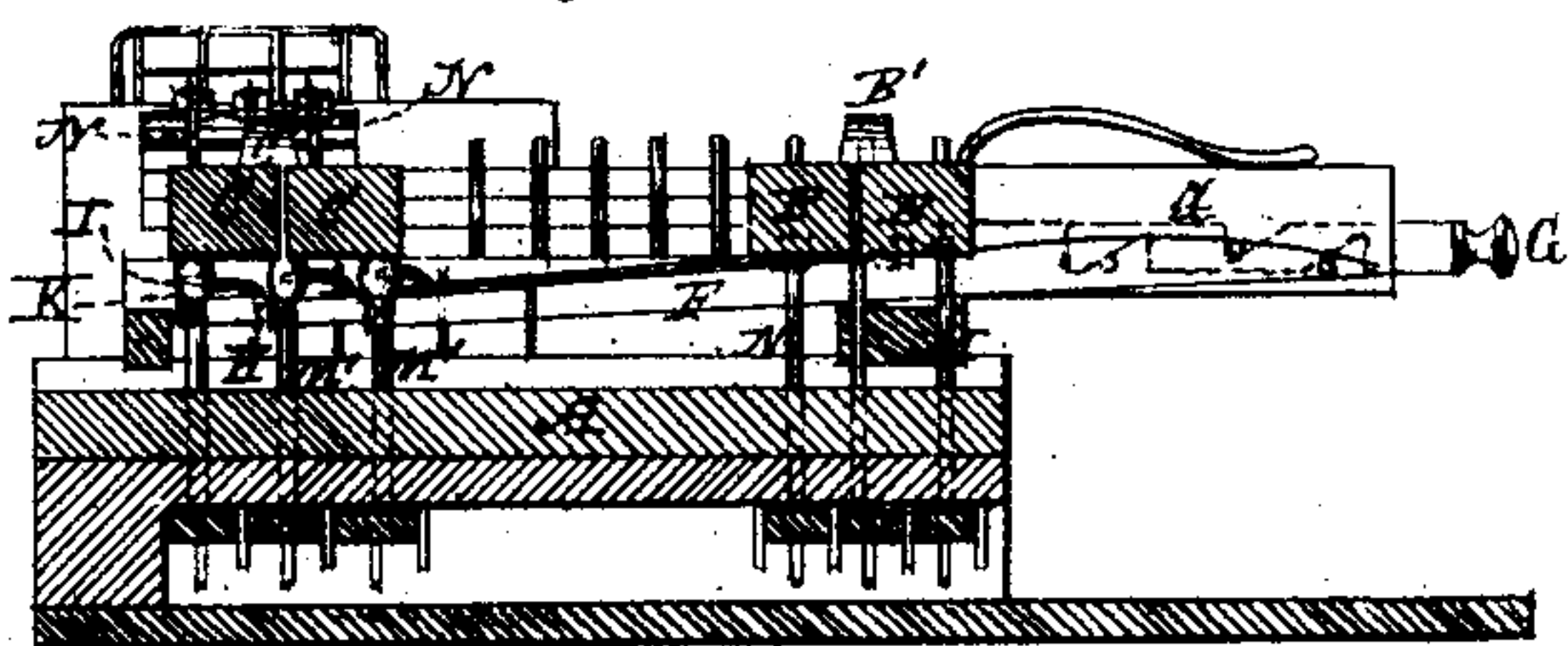
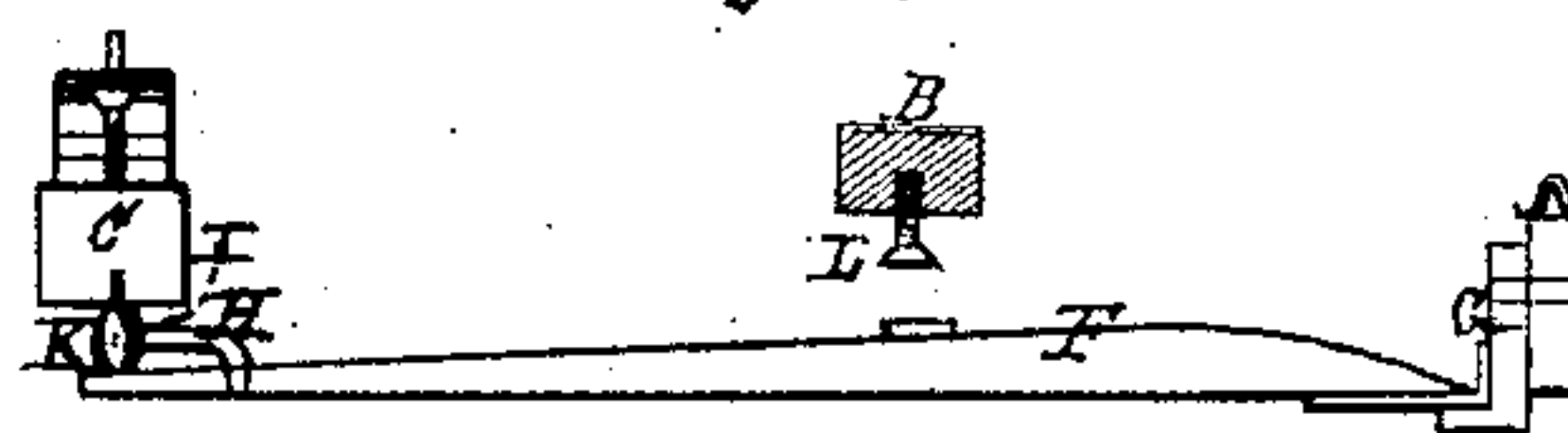
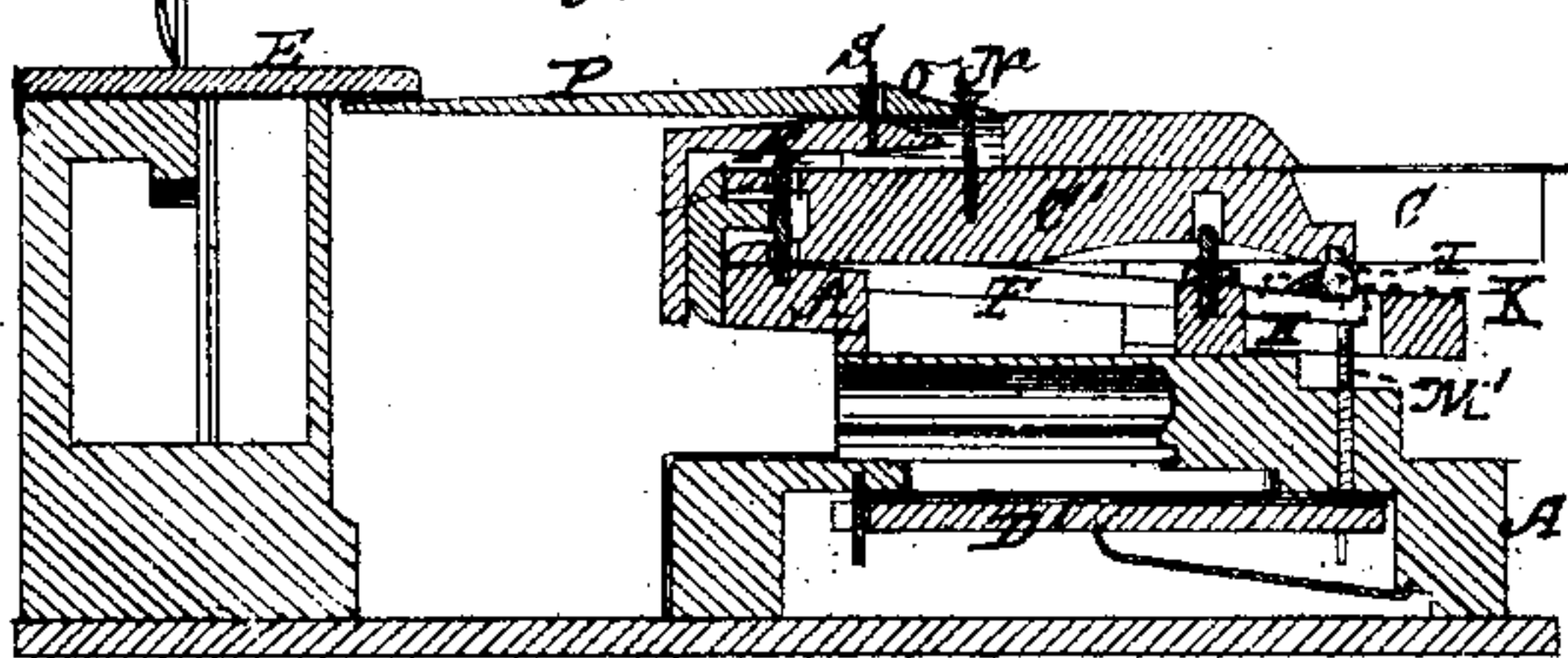


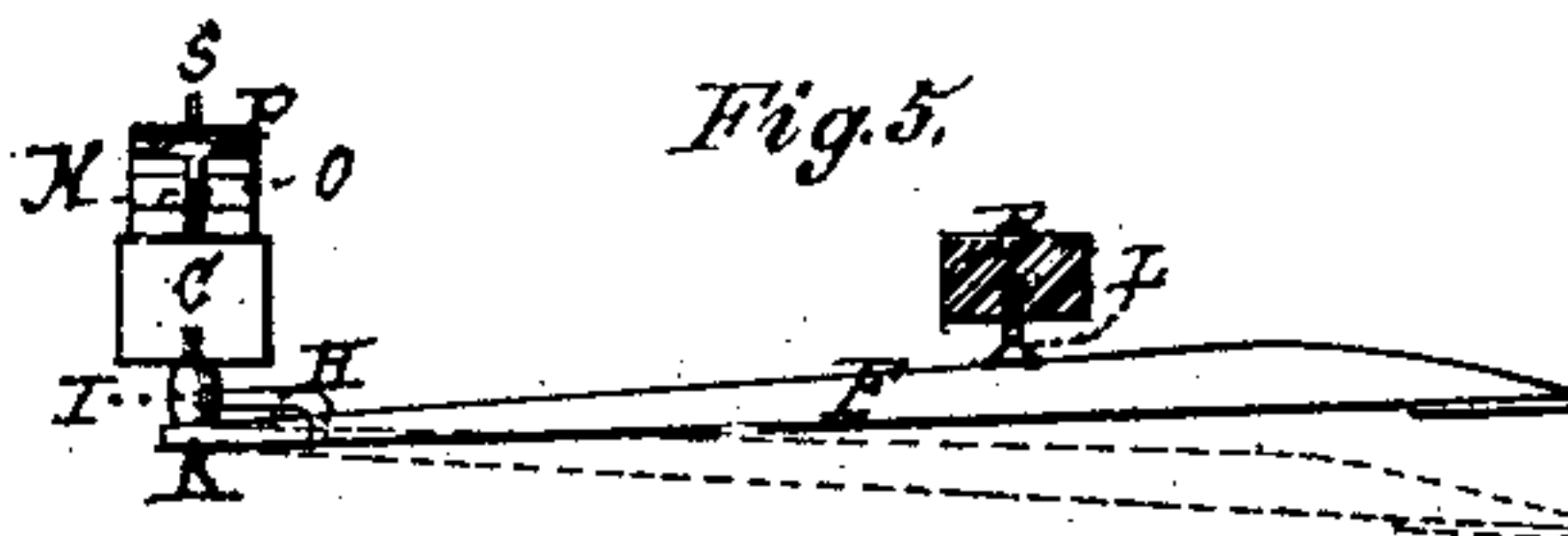
Fig. 6.



*Fig.4.*



*Fig. 5.*



Witnesses:

Chas. W. Nott.

*J. R. Comas*

Inventor:

George Cook

# United States Patent Office.

GEORGE COOK, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 103,019, dated May 17, 1870.

## IMPROVEMENT IN SUB-BASE REED-ORGAN COUPLERS.

The Schedule referred to in these Letters Patent and making part of the same

I, GEORGE COOK, of New Haven, in the county of New Haven and State of Connecticut, have invented an Improvement in Sub-Base Couplers for Reed-Organs, of which the following is a specification.

This invention relates to improvements in certain mechanism employed to connect the keys one with another, and with the valves of the organ, in such manner that any given tone and its octave, or any other intervals that may be desired on the same key-board, may be played at one and the same time by pressing a single key; and

My improvement consists of a direct and positive connection between the keys of the principal, the keys of the octave, and the latter keys with the common and sub-base valves; by means of which the keys of the octave are pulled down, and the common and sub-base valves, connected with said octave keys, are opened by a positive connection, on pressing the principal keys, which could not be effected with certainty, when the keys of the octave are permitted to act only, by falling, by their own gravity, for operating the octave valves of the organ, as I will further explain by reference to the accompanying drawings, of which—

Figure 1 is a top view of a portion of a key-board of an organ, showing some of the keys, and their connection, one with another, and with the valves of the organ; also, the lever for elevating and depressing the diagonal bars;

Figure 2, a front elevation of same;

Figure 3, a longitudinal section;

Figure 4, a transverse section;

Figure 5, a view of the coupler in action; and

Figure 6, a view of the coupler thrown out of action by dropping the diagonal bars away from the principal keys.

In the said drawings—

A indicates the key-board of a reed-organ;

B B' B, the principal keys; and

C C' C, the octave keys.

D D' are the common valves placed below the key-board;

E E are the sub-base valves; and

F F' F are the diagonal rods attached at their inner ends to, and sustained by a sliding bar, G, which is made to slide up and down, bringing the diagonal rods F in contact with or away from the principal

keys B, by means of the hand-lever G', (see figs. 2 and 3.)

These diagonal rods are provided at their forward ends with bent arms H, which enter circular holes I, in the blocks K, attached to the octave-keys C.

The principal keys B, when the coupler is in action, rest partly on the common valve-rods M, and partly upon the diagonal rods F, through their jacks L.

The octave keys C, through their blocks K, rest on the ends of the diagonal rods F, said rods resting on the octave valve-rods M'.

These octave keys C are provided, near their inner ends, with headed posts N, the necks of which are embraced by the bifurcated ends O of the sub-base valve-levers P, said levers being sustained on fulcrums R, and having slots and steady-pins S, (see figs. 1 and 4.)

Now, by pressing on one of the principal keys B, the said key will bear on the valve-rod M, opening the valve D, and said key will, at the same time, through its jack L, bear down the diagonal rod F; when said rod, being connected with the octave key C by its bent arm H and block K, attached to said key, will positively draw down the octave key C, said key C, in turn, through its block K, pressing down the rod M', opening the octave valve D', and, at the same time, the said key C, through its post N, will positively draw down and tilt the bifurcated valve-lever P, opening the sub-base valve E.

In this manner the principal, octave, and sub-base valves are operated, on touching a single key of the principal, and when it may be desired to play the instrument without the combination, the diagonal rods are slid away from the octave keys.

I do not claim coupling the principal and octave keys of an organ or melodeon by means of diagonal rods, for such is not new; but

What I do claim, is—

The bent arms H upon the coupling-levers F, when combined with the sub-base valves E, keys B and C, and adjustable slide G', substantially as set forth.

In testimony whereof I hereunto set my signature this 15th day of February, 1870.

Witnesses:

GEORGE COOK.

HENRY ROGERS,

ARTHUR L. HOWE.