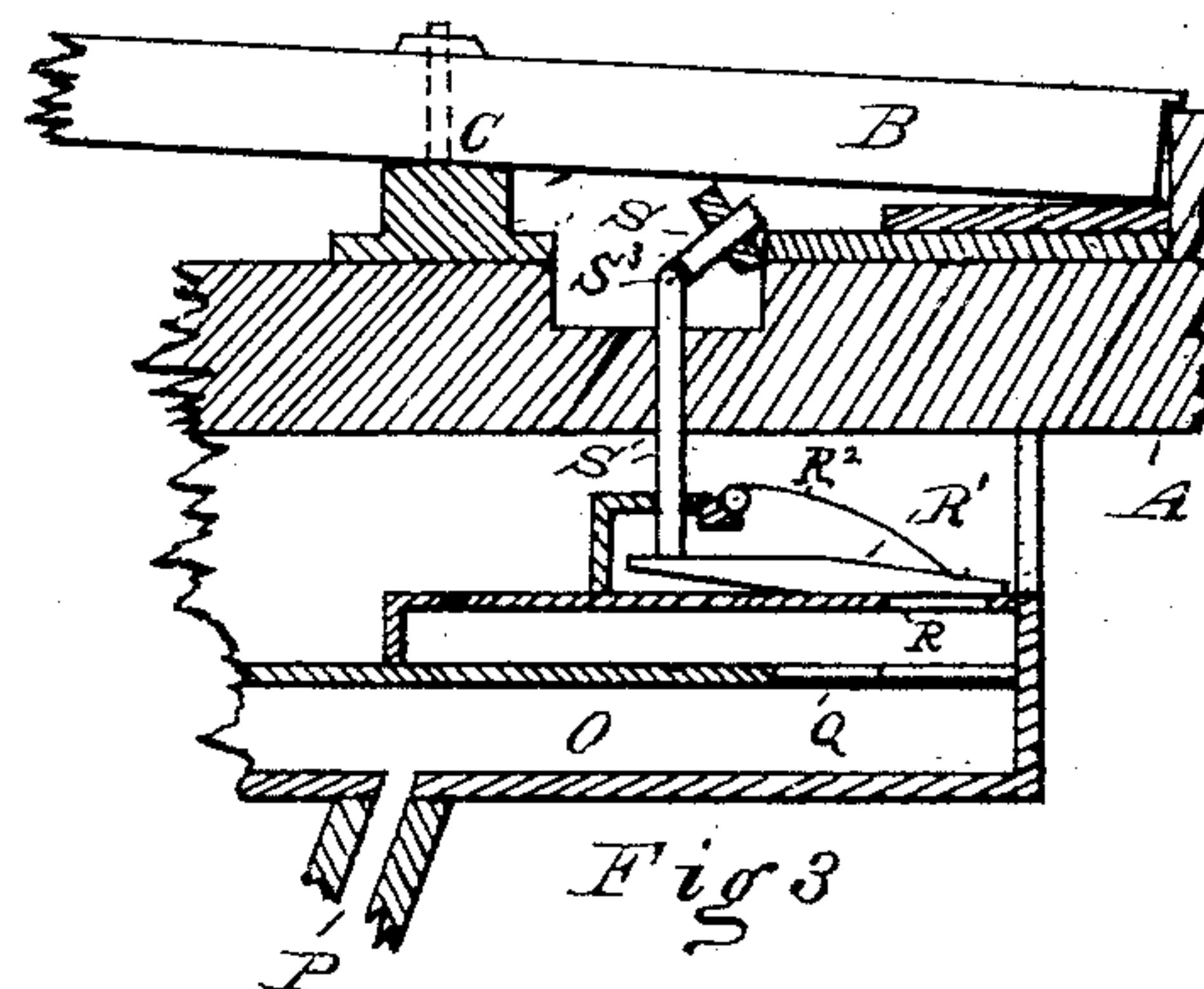
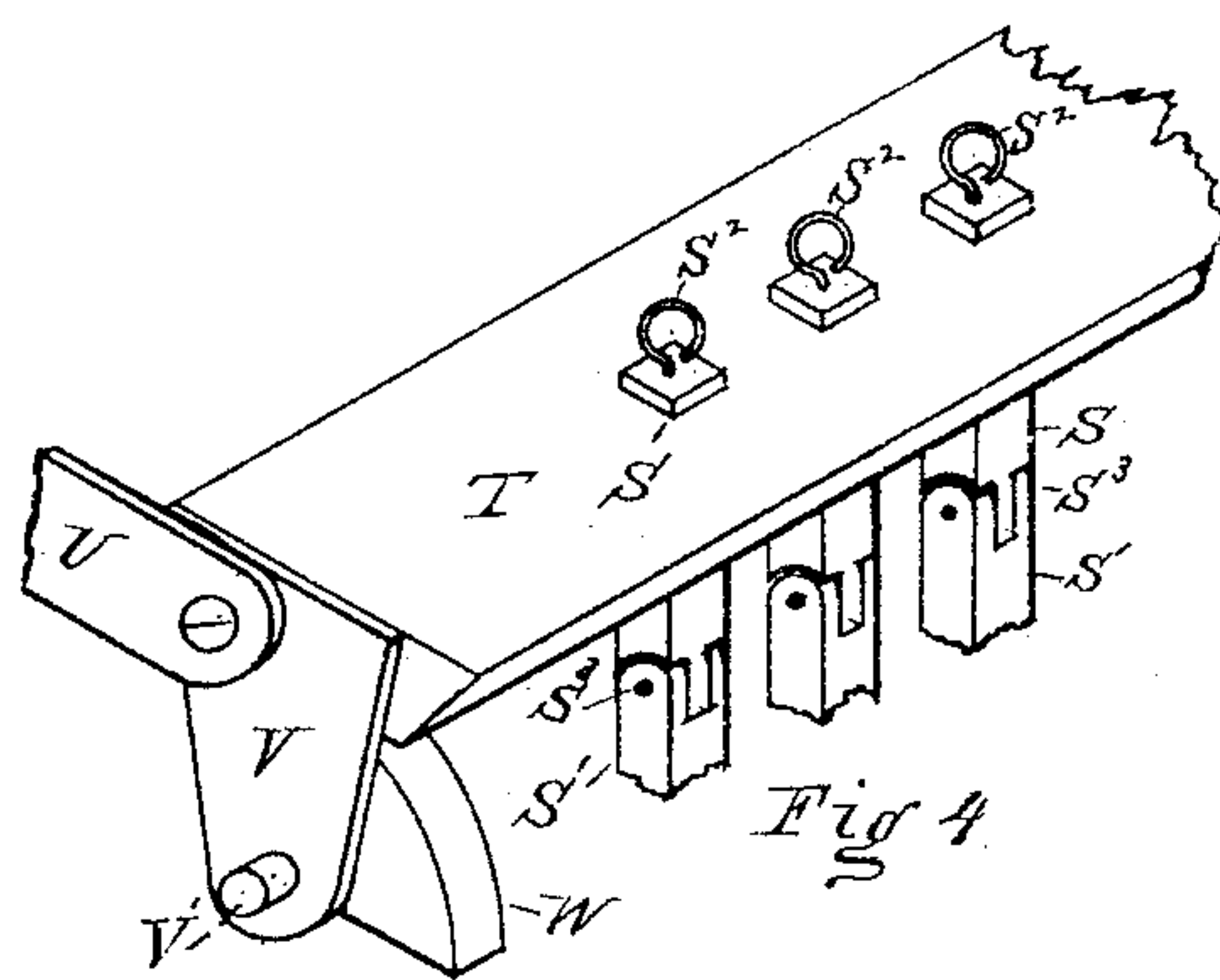
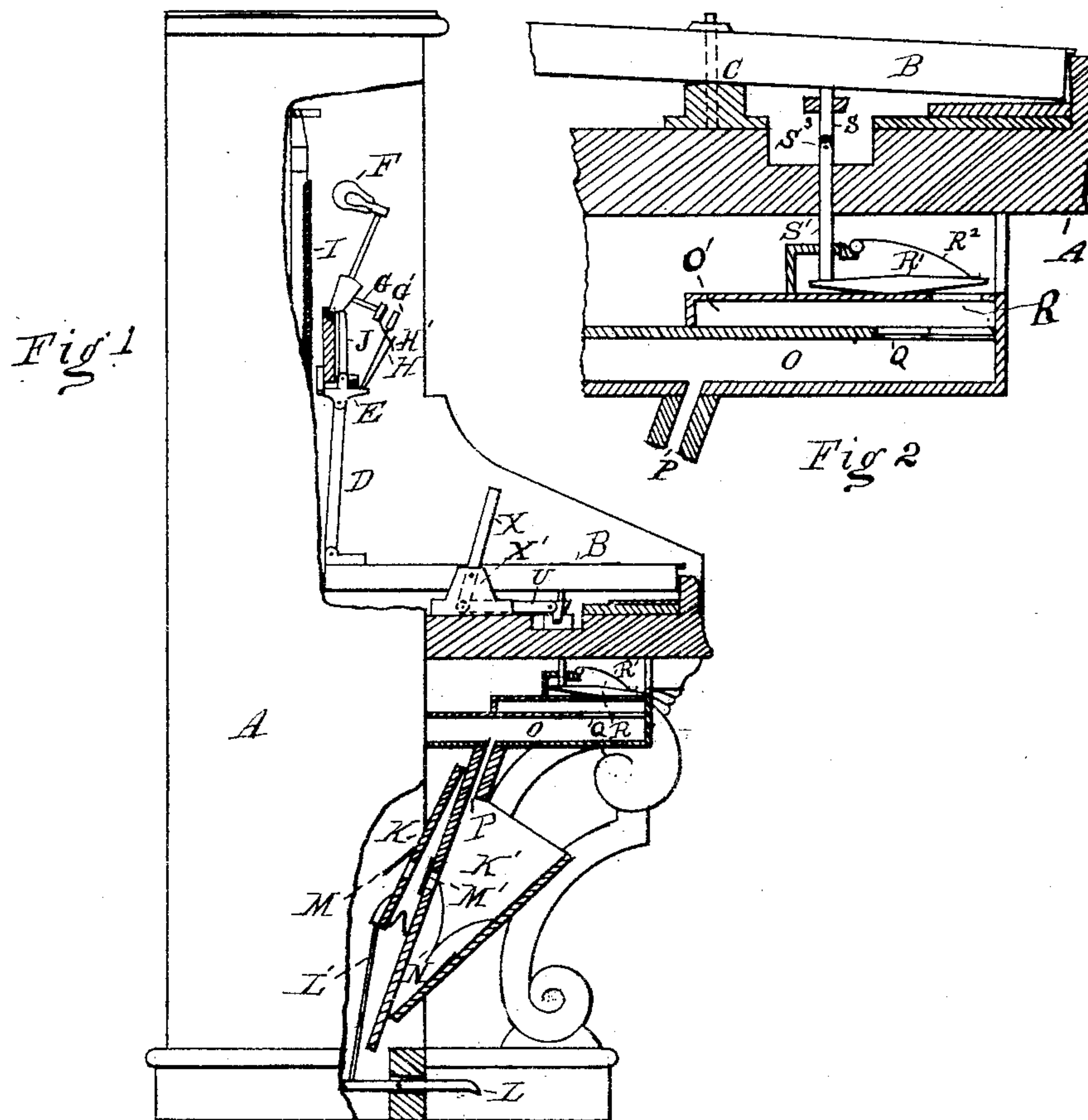


(No Model.)

C. AUSTIN.
COMBINED PIANO AND REED ORGAN.

No. 262,916.

Patented Aug. 22, 1882.



Witnesses -
Kirkley Lloyd
Wilfred P. Taylor

Inventor -
Charles Austin,
By Albert M. Moore,
His Attorney.

UNITED STATES PATENT OFFICE.

CHARLES AUSTIN, OF LOWELL, MASSACHUSETTS.

COMBINED PIANO AND REED-ORGAN.

SPECIFICATION forming part of Letters Patent No. 262,916, dated August 22, 1882.

Application filed November 5, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES AUSTIN, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts have invented certain new and useful Improvements in Combined Piano and Reed-Organ, of which the following is a specification.

My invention relates to pianos provided with a reed-organ attachment to be operated, when desired, in conjunction with the piano or to remain silent while the piano is being played, and said invention is applicable as well to reed-organs in which it may be desirable temporarily to throw a set of tracker-pins out of reach of the keys.

In the accompanying drawings, Figure 1 is an end elevation of an upright piano provided with my improvements, a part of the end of the case being broken away to show the piano-action and the exhaust-bellows, wind-chests, reeds, tracker-pins, and means of connecting the organ with the keys of the piano. Figs. 2 and 3 represent the key, tracker-pin, reed, wind-chest, and exhaust-passage in vertical longitudinal section, the key being depressed in each figure, the upper end of the tracker-pin in a position to be operated by the key in Fig. 2 and the reed-valve opened by the depression of the key in said Fig. 2, but in Fig. 3 said upper end of this tracker-pin turned over out of the reach of the key, and the valve consequently remaining closed. Fig. 4 is an enlarged oblique view of the upper ends of the tracker-pins, the piece which connects them with its journals, and the connecting-rod which runs from said piece to the lever by which the organ attachment is brought into play.

A is the case and frame of an upright piano; B, the key, turning upon the fulcrum C; D, the riser; E, the jack-bed; J, the jack, pivoted to said bed and pressing up against the butt of the hammer F; H, the spring connected by the tape H' to the bunter G of the hammer F; G', the back-catch, and I the string, all constructed, arranged, and operated in the usual manner.

K K' is an exhaust-bellows, operated by a pedal or treadle, L, connected to the back-board of the bellows K by the rod L'. The bellows K K' are like those commonly employed in cabinet-organs, being double—that

is, consisting of two compartments—the valve M' of one, K', opening into the other compartment, K, and the valve M of the latter opening outward, so that the operation of the treadle draws the air from the wind-chest into the bellows K' by the passage P, and from the bellows K' into the bellows K, and expels the air from the bellows K. When the bellows K contracts the valve M' closes, and the bellows K', which has been contracted by drawing the air from it, is expanded by the spring N, and continues to exhaust the air from the wind-chest for a short time, so that when the pedal L is operated the air flows continuously from the chest O O' through said passage P, and the air, rushing into said wind-chest and through the reed Q, sounds the latter. This takes place, however, only when the valve R' is open. When it is shut no air can pass through the reed and the reed does not sound. The valve R' is of the form shown, being rhombic in cross-section and rocking on one of its obtuse angles, one of its flat sides serving, when down, to close the aperture R into the reed-box O' or upper compartment of the wind-chest O O', and it is so forced down by the spring R² resting upon the front end of the valve. The tracker-pin S S' rests on the rear end of the valve, the top of said pin being provided with a loop, S², or rounded bearing for the key to rest upon when the organ attachment is in use, at which time the depression of the key opens the valve R' and allows the reed to be sounded by the operation of the bellows. It not being at all times desirable to use the organ attachment in connection with the piano, the upper part, S, of the tracker-pin is hinged or jointed at S³ to the lower part, S', and may be bent forward so as not to be touched by the key B when the latter is depressed, as shown in Fig. 3. In order that all the tracker-pins of the instrument may be simultaneously disconnected from the piano-action, they are all connected to each other by the strip or piece T, Fig. 4, through which the parts S all project. The piece T is provided at each end with an arm, V, turning upon a pivot, V', in a stationary part, W, secured to the frame. A lever, X, pivoted to a bracket, X', secured to the frame, is connected by the rod U to the piece T, so that pushing the upper end of said

lever X back bends the upper ends of all the tracker-pins forward into the position shown in Fig. 3.

The above-described improvements may be used in a horizontal piano or in an organ having more than one set of tracker-pins.

I claim as my invention—

1. The combination of the key B and the jointed tracker-pin S S' and means for throwing the upper end of the same out of reach of said key, as and for the purpose specified.

2. The combination of the jointed tracker-

pin S S', the lever X, and connecting mechanism, as and for the purpose specified.

3. The combination of a plurality of jointed tracker-pins S S', the connecting-piece T, provided with the arm V and turning upon a pivot, V', in the part W of the frame, the connecting-rod U, and the lever X, as and for the purpose specified.

CHARLES AUSTIN.

Witnesses:

ALBERT M. MOORE,
HARRY W. KENNEY.