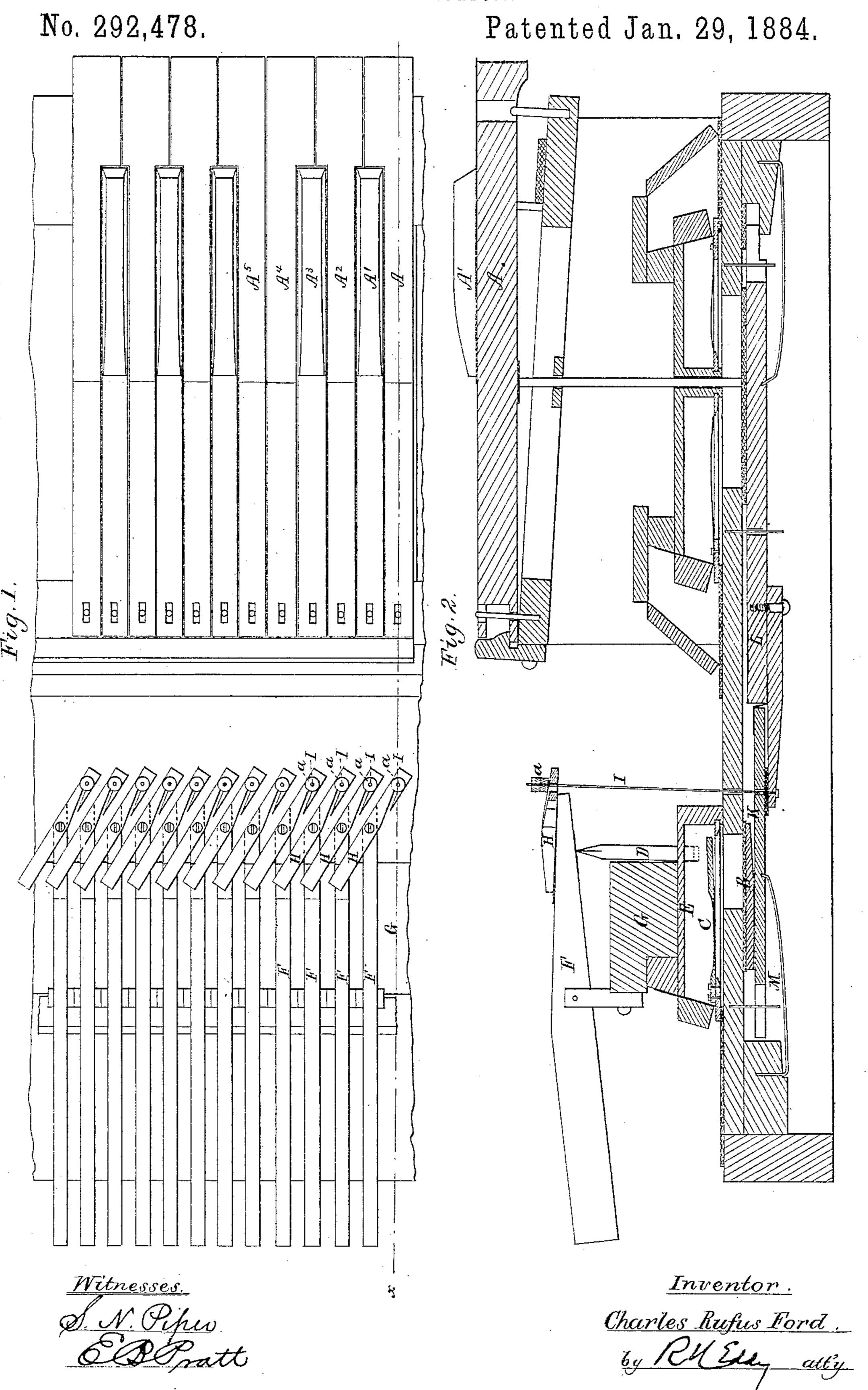
C. R. FORD.

## ORGAN ACTION.



## United States Patent Office.

CHARLES RUFUS FORD, OF BOSTON, MASSACHUSETTS.

## ORGAN-ACTION.

SPECIFICATION forming part of Letters Patent No. 292,478, dated January 29, 1884. Application filed June 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES RUFUS FORD, of Boston, in the county of Suffolk, of the Commonwealth of Massachusetts, have invented 5 a new and useful Improvement in Reed-Organs; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Fig. 2 a longitudinal section, of some of the keys of a reedorgan with my invention applied to them and their reeds, the said invention being designed to mute in a set of reeds those thereof 15 that may be above (viz: to the right of) any one of them when sounded, and also to leave the keys of the muted reeds free to operate their reeds of either or all of the auxiliary

sets of reeds. 20] By "muting" a reed is meant stopping it will be perceived that the object of my invention is to effect the muting of certain of 25 the reeds of one set and leave the keys of the muted reeds free to operate their reeds of the other set. The purpose of so muting certain of the reeds of one set is to prevent them from being sounded while their keys are op-30 erating their reeds of the other set, such being an advantage, or productive of an effect or effects readily understood by organists.

The invention as represented is intended for a bass attachment. In a reed-organ a "man-35 ual" or bank of keys usually operates two or more sets of reeds by means of their valves. The nature of my invention is duly defined

in the claims hereinafter presented.

In the drawings, A, A', A<sup>2</sup>, A<sup>3</sup>, A<sup>4</sup>, &c., 40 denote the keys, each being furnished with mechanism of the usual kind to enable it to operate the valve B of the reed C. Directly over each reed is a mute, D, which is a round rod adapted to slide vertically in the reed-45 case E. This rod at its upper end depends from or is hinged to the inner arm of one of a set of levers, F, arranged as shown, and fulcrumed to a stationary bar, G, arranged over the reed-case. The longer arm of each 50 of such levers is somewhat heavier than the

shorter arm of such lever, in order to overbalance the weight of the latter and the mute of it, and thereby to raise the latter relatively to the reed. To the front or shorter arm of each of the said levers a short bar or piece 55 of wood, H, is attached, and arranged to extend across the lever in opposite directions and obliquely to it and over and upon the next adjacent lever, in manner as represented. From this piece H, which I term a "fin- 60 ger," a wire, I, depends. The said wire goes up through the finger, and is provided with a button, a, that is screwed or fixed on the wire and rests on the finger. The wire extends downward through a lever, K, arranged, as 65 shown in Fig. 2, with the valve-operating lever L of the key. The levers K and L are connected, so as to cause the valve-lever, when depressed, to depress the lever K. A spring, M, properly applied to the said lever 70 from vibrating, the article or device for such | K, serves to move it upward after a deprespurpose being termed a "mute." Thus it sion of it by the valve-lever moved by the key.

> From the above it will be seen that when any key of the set is struck not only will its 75 reed-valve be opened, so as to cause its reed to be sounded, but all the reeds belonging to the keys to the right of or above the key struck will be muted. The keys of the muted reeds on being struck will cause their other 80 reeds to be sounded.

The great advantage of my invention will be understood by players on and constructors of reed-organs.

I claim—

1. In combination with the reeds and the keys for operating the valves thereof, the series of mutes and their levers and oblique fingers, arranged and adapted to operate substantially as described, and provided with 90 mechanism for effecting depressions of the said levers by means of the keys, as explained.

2. The combination of the mutes, the operative levers, and the series of oblique fingers and their depressing-wires, all being arranged 95 and adapted to operate as set forth.

CHARLES RUFUS FORD.

Witnesses:

R. H. Eddy, E. B. PRATT.