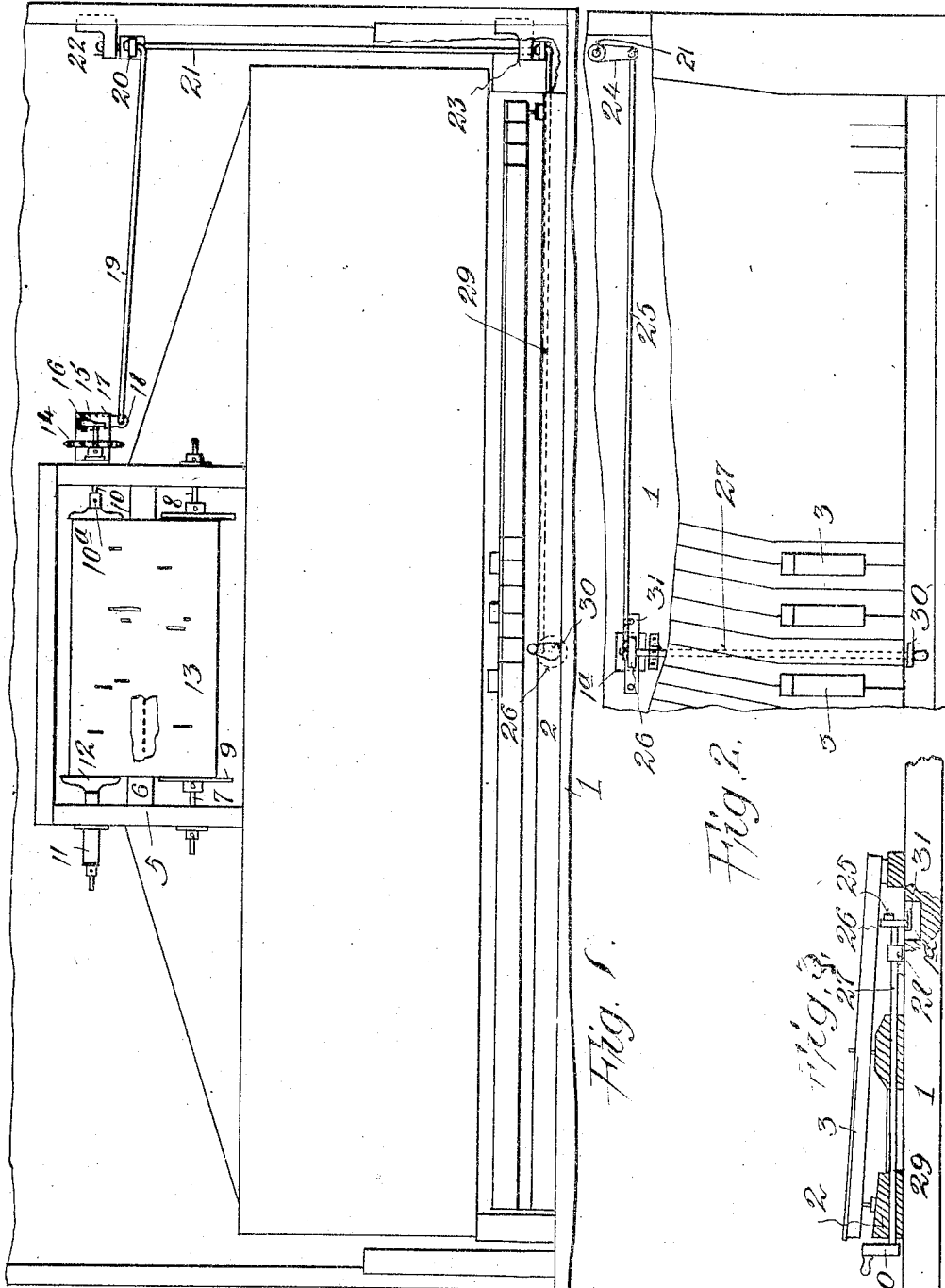


L. H. MAIER.
MUSIC SPOOL MECHANISM.
APPLICATION FILED MAY 29, 1912.

1,057,070.

Patented Mar. 25, 1913.



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UNITED STATES PATENT OFFICE.

LOUIS H. MAIER, OF NEW YORK, N. Y.

MUSIC-SPOOL MECHANISM.

1,057,070.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS H. MAIER, a citizen of the United States, and resident of New York city, borough of the Bronx, in the county of New York and State of New York, have invented certain new and useful Improvements in Music-Spool Mechanisms, of which the following is a specification.

The object of my invention is to provide simple and efficient means to control spindles of shafts of the music rolls in automatic musical instruments, to shift the shaft and roll for longitudinal adjustment as required.

My invention comprises novel details of improvement and combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein, Figure 1 is a front view of a portion of a piano provided with my improvements; Fig. 2 is a partly broken plan view, and Fig. 3 is a side view, partly in section.

I have shown my improvements applied in a player piano having the customary key bottom 1, key frame 2, and keys 3, supported in the piano case 4 in usual manner, the latter being provided with music roll box 5, a tracker 6, shafts 7, 8, for the takeup roll 9, shaft 10 and adjusting device 11 for the music roll 12 having the music sheet 13. The shaft 10 is mounted to slide in bearings in box 5 in the usual manner, and is provided with the driving sprocket 14 to be rotated by any suitable mechanism. Shaft 10 is normally engaged by finger 15 on a rock shaft 16 journaled in a support 17 and operated by crank 18 in a well known manner. Crank 18 is pivotally connected by a link 19 with a crank 20 on a vertically disposed shaft 21 journaled in bearings 22, 23 carried by the piano case. Shaft 21 at its lower end is provided with a crank 24 pivotally connected by a rod 25 with a head or the like 26, in the nature of a crank, secured upon a shaft 27 journaled in bearings 28, 29 in the key frame. The forward end of shaft 27 in front of the key frame is provided with a handle 30 in position to be conveniently operated. To hold shaft 27 in set position I have shown a spring 31 secured to

the key bottom and bridged across an opening 1^a therein, against which spring head or block 26 bears frictionally as said shaft is turned. The arrangement of the parts set forth is such that when the handle 30 is in one position, as in the vertical position shown in Fig. 1, the devices that connect said handle with the crank 18 retain shaft 10 in a position to support and rotate the music roll 12 by the interposed coupling 10^a of any well-known construction. If shaft 10 is to be adjusted in one direction or the other the handle 30 will be correspondingly rocked, and by the connections from said handle to crank 18, the finger 15 will be rocked to cause shaft 10 to be shifted the required amount to adjust the music spool with respect to the tracker, in order to maintain perfect registration of the perforations in the music sheet with the orifices in the tracker, and the parts will be retained in set position by spring 31 bearing against head or block 26.

Having now described my invention what I claim is:—

1. The combination of a musical instrument having keys and a key frame, music roll supporting mechanism provided with a shaft having means to connect with a music roll, a finger to coact with said shaft to move it longitudinally, a crank arm connected with said finger, a vertically disposed shaft carried by the musical instrument and connected with said crank arm, a horizontal rod connected with said shaft to rock the latter, a shaft beneath the keys, said shaft having a head connected with said rod, a spring to coact with said head, and a handle on said shaft in front of the keys, said shaft being journaled in the key frame.

2. The combination of a musical instrument having keys and a key frame, music roll supporting mechanism provided with a shaft having means to connect with a music roll, a finger to coact with said shaft to move it longitudinally, a crank arm connected with said finger, a vertically disposed shaft carried by the musical instrument and connected with said crank arm, a horizontal rod connected with said shaft to rock the latter, a shaft beneath the keys, said shaft having

a head connected with said rod, and a spring carried by the key bottom to coact with said head, the key bottom having an opening beneath said spring, and a handle on said shaft 5 in front of the keys, said shaft being journaled on the key frame.

Signed at New York city, in the county of

New York, and State of New York, this 28th day of May, A. D. 1912.

LOUIS H. MAIER.

Witnesses:

T. F. BOURNE,

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