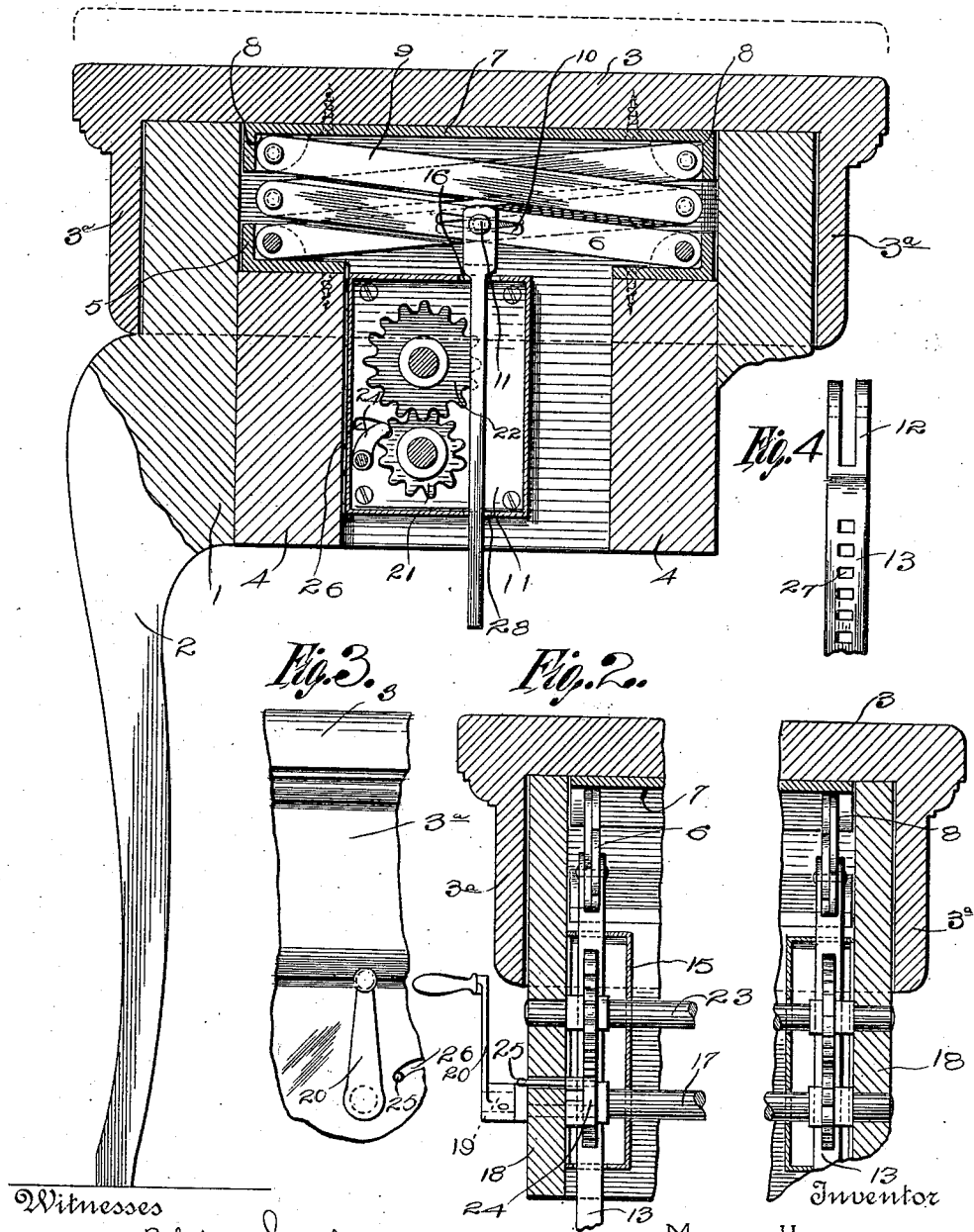


M. HATHAWAY.
PIANO BENCH.
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1,034,443.

Patented Aug. 6, 1912.

Fig. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

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PIANO-BENCH.

1,034,443.

Specification of Letters Patent.

Patented Aug. 6, 1912.

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To all whom it may concern:

Be it known that I, MARION HATHAWAY, a citizen of the United States, residing at Pasadena, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Piano-Benches, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to piano benches, and has for its object the production of a bench which may be adjusted to different heights.

15 Another object of this invention is the production of a simple and efficient means for adjusting the bench to the desired height.

20 With these and other objects in view this invention consists of certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described and claimed.

25 In the drawings: Figure 1 is a transverse sectional view of the bench. Fig. 2 is a longitudinal, fragmentary sectional view of the bench. Fig. 3 is a fragmentary side view of the bench showing the operating crank carried thereby. Fig. 4 is a front view of the supporting rack member which is adapted to operate the rotating means supporting the adjustable top.

30 Referring to the drawings by numerals 1 designates the body of the bench which is supported by means of legs 2, and an adjustable top 3 is carried by the body 1. The body 1 is provided with a pair of longitudinally extending members 4 which members carry upon their upper faces and near each end a socket plate 5, in which plate is pivotally mounted one end of the toggle members 6, hereinafter described. A plate 7 is carried by the under surface of the top 3, and is provided upon each end with a plurality of lugs 8 in which lugs are pivotally secured the upper ends of the toggles 6.

35 The toggles 6 comprise a plurality of members 9 which are connected in the usual lazy-tong manner and the two lower toggles are provided with longitudinally extending slots 10 in which works the pin 11 carried by the upper substantially U-shaped end 12 of the rack member 13.

40 A casing 14 is carried by each end of the bench and this casing is preferably rectangular in shape and is provided with an outer plate 15. Each casing 14 is provided

upon its upper end with an opening 16 through which works the rack member 13.

45 An operating shaft 17 extends longitudinally of the bench and has its respective ends journaled in the side members 18 thereof. One end of the shaft 17 extends beyond one of the side members 18 as indicated in dotted lines at 19 and an operating crank 20 is positioned upon its end 19 for allowing rotary movement to be imparted to the shaft 17. An operating gear 21 is carried by the shaft 17 and this gear 17 when rotated will operate the rack bar controlling gear 22 which gear is carried by the shaft 23 which shaft like the shaft 17 extends longitudinally of the bench and has its respective ends journaled in the end members 18 of the bench. A pawl 24 is pivotally mounted upon the inner portion of one of the side members 18 and is adapted to engage the teeth of the gear 21 for preventing rotation of the gear 21 in one direction.

50 The pawl 24 is provided with a laterally extending pin 25 which extends through slot 26 formed in one of the side members 18, and it will therefore be obvious that when it is desired to allow the gear 21 to rotate in a counter-clockwise direction, the pin 25 can be shifted in the slot 26 thereby withdrawing the free end of the pawl 24 out of engagement with the teeth of the gear wheel 21.

55 The rack bar 13 is provided with a plurality of notches 27, which notches cooperate with the teeth of the gear 22 and it will therefore be obvious that as the crank 20 is operated in one direction, rotating the gear 21 clockwise, the rack bar 13 will be raised thereby causing the pin 11 to work in the slots 10 formed in the lower members of the toggle 6. By this operation the top 10 of the bench will be raised and it will be obvious that the same may be adjusted to any desired or convenient height. Of course, it should be understood, as illustrated in Fig. 2, that a set of toggles is carried by each end of the bench and also gears corresponding with the gears 21 and 22, although, it is not necessary to have the crank and pawl upon both ends of the bench. The casing 14 is provided upon its lower end similar to the upper end thereof with an aperture 28 to allow the lower end of the rack bar 13 to pass therethrough.

It will be obvious that through the move-

ment of the crank 20, the gears 21 may be operated so as to raise the top through the medium of the rack bar 13 and when it is desired to lower the top this may be accomplished by shifting pin 25 within the curved slot 26, thereby removing the pawl from engagement with the teeth 21 and allowing the top to descend upon the body of the bench.

10 It will also be obvious that in view of the fact that the top 3 is provided with downwardly extending flanges 3^a the same will be prevented from having any lateral movement upon the body, which would be likely to cause damage to the supporting toggles 6.

20 From the foregoing description it will be obvious that I have produced a bench which may be rectangular or any other desired shape which is provided with a top capable of being adjusted in a vertical position so as to accommodate the user.

25 It will also be obvious that by the structure as illustrated and described that a very stable and efficient device has been produced.

What I claim is:—

A piano bench of the class described comprising a body, a top, a shaft carried by said body, a gear wheel carried by said shaft, 30 an enlarged pinion carried by said body, and operated by said gear wheel a rack reciprocable in guides upon said body and operated by said pinion, a toggle carried by said rack and engaging said top for 35 raising said top when said pinion is rotated, said body being provided with a semicircular groove, a dog pivotally mounted upon said body and normally engaging said gear wheel carried by said shaft, a pin integrally secured to said dog and extending 40 through said semicircular groove for facilitating the withdrawal of said dog from said gear wheel when it is desired to release said gear wheel and allow the same to rotate 45 independently of said dog.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

MARION HATHAWAY.

Witnesses:

T. A. REYNOLDS,
FRANK J. PIERCE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."