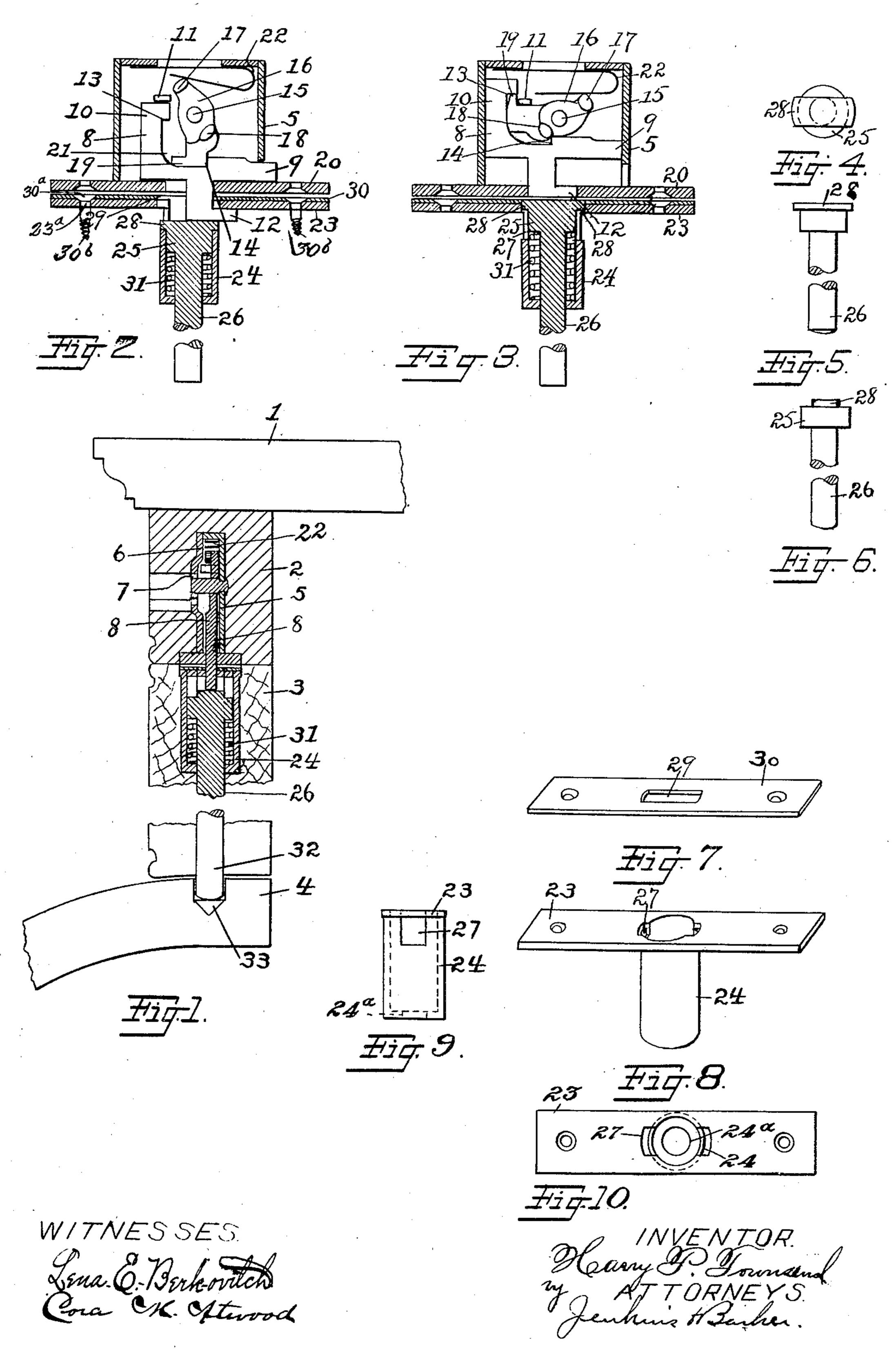
## H. P. TOWNSEND. LOCK STRIKE.

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## UNITED STATES PATENT OFFICE.

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## LOCK-STRIKE.

No. 830,624.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARRY P. TOWNSEND, of New Britain, in the county of Hartford and State of Connecticut, have invented a certain new and useful Lock-Strike, of which

the following is a specification.

My invention relates more especially to that form of strike that may be designated as a "combined strike and lock" and which is commonly used in piano construction; and the object of my invention is to provide a combined strike and lock that shall be extremely simple and cheap in construction, easily assembled, and one that shall include a combined strike and lock bolt. A device in the use of which these objects may be obtained is illustrated in the accompanying drawings, in which—

Figure 1 is a view, partly in section, through the case of a piano, showing my improvement attached thereto. Fig. 2 is a detail view, on enlarged scale, with the front plate of the lock-case removed and showing the parts in locked position. Fig. 3 is a like view, but showing the parts in an unlocked position. Fig. 4 is a top or end view of the

Fig. 6 is a similar view, but showing the bolt in a position at right angles to that of Fig. 5.

Fig. 7 is a perspective view of the face-plate. Fig. 8 is a perspective view of the strike-plate and attached bolt-case. Fig. 9 is an end view of the same. Fig. 10 is a top view of the device shown in Figs. 8 and 9.

strike-bolt. Fig. 5 is a side view of the same.

In the accompanying drawings the numeral 1 indicates the string cover of a pianocase, said cover having a flange 2 projecting

from its under surface.

The numeral 3 indicates a cross-piece form-40 ing a part of the piano-case, and the numeral

4 indicates the key-cover of the piano.

A lock-case 5 is mounted in the flange 2 of the string-cover, this case being suitably constructed with a cover-plate 6, having a key-hole 7. A bolt 8, located in the case, has two guide projections 9 10, located, preferably, at right angles to each other. The projection 10 coöperates with a guide-stud 11, projecting from the back wall of the case. The bolt is also provided with a bolt-catch 12 common to this class of locks and adapted to pass through and engage underneath the strike. The bolt is also provided with shoul-

ders 13 14. A key-pin 15 projects into the case from one wall thereof, and a cam 16 is 55 mounted upon this pin. This cam bears bitlugs 17 and 18. It also has a bolt-operating nose 19. The case is also provided with a plate 20, through which the bolt-catch projects, and a recess 21 is provided in the bolt. 60 A spring 22 acts upon the cam under certain conditions.

conditions. A strike-plate 23 is secured to the edge of the cross-piece 3, and a strike-bolt case 24 is secured to the under side of the plate. This 65, case is of a size to receive the head 25 of the strike-bolt 26 and is provided on opposite sides with slots 27 for the reception of the flanges 28 on the strike-bolt. The engagement of these flanges 28 with the slots in the 70 case 24 prevents a rotating movement of the bolt, but permits lengthwise movement thereof. The ends of these flanges 28 are preferably formed on the arc of a circle. In the construction of the bolt the flange is at first 75 of circular form, and it is then milled off with parallel sides to fit and fill an opening 29 in the face-plate 30. A spring 31, located within the case 24, holds the bolt normally in a position with the flange or projection 28 ld- 80 cated in the opening 29 in the face-plate 30. The bolt projects through an opening 24<sup>a</sup> in the end of the bolt-case 24 and through the cross-piece 3, and its lower end 32 projects into a recess 33 in the key-cover. The face-85 plate 30 and the strike-plate may be secured together in any desired manner. I have found that different ways or means for securing the two plates together may be satisfactorily employed, and screws 30b, passing 90 through the holes 23<sup>a</sup> and 30<sup>a</sup> and into the wood to secure the strike-plate, will serve as a means for securing the two plates in engagement, this manner of fastening being shown in Fig. 2 of the drawings. It will be 95 noted that in the operation of the lock the bolt-catch 12, coming in contact with the flange or projection 28, forces the bolt downward and into engagement with the keycover, thus locking the string-cover and the 100 key-cover in position. The milling off of the sides of the flange or projection 28 forms a shoulder, which provides a stop to engage the under side of the face-plate and limits the movement of the bolt in opposition to 105 the spring 31.

A peculiar feature of my invention resides in the shoulder which is formed at the end of the strike-bolt, this shoulder being formed by reducing the end of the bolt, and by the term 5 "reducing" is meant that the end of the bolt is so formed that its dimensions are less, at least in one direction, than the dimensions of that part of the head located immediately thereunder.

It is obvious that the details of construction may be departed from to a greater or less extent without avoiding the invention, and I do not, therefore, desire to limit myself to the exact details shown and described

15 herein.

What I claim as my invention, and desire

to secure by Letters Patent, is—

1. In a lock-strike, a strike-plate, a cylindrical casing mounted on the strike-plate, a 20 bolt fitting within said casing, means for moving the bolt lengthwise, means for preventing rotation of the bolt, and a face-plate attached to the strike-plate and having an opening for the admission of said bolt and forming a stop 25 to limit its movement.

2. In a lock-strike, a strike-plate, a casing mounted on the strike-plate, a bolt having an engaging projection to prevent rotary movement thereof and a shoulder for engagement 3° with a face-plate, means for moving the bolt lengthwise, and the face-plate attached to the strike-plate and having an opening for

the projection on the bolt.

3. In a lock-strike, a strike-plate, a casing 35 secured to the strike-plate and having a slot, a bolt mounted in the casing and having a projection fitting said slot in the casing and a shoulder adjacent to said projection for engagement with face - plate, means for 4° moving the bolt lengthwise, and the faceplate secured to the strike-plate and having an opening for the projection on the bolt.

4. In a lock-strike, a strike-plate, a casing mounted on the strike-plate, a bolt located within said casing and having a projection on its end with parallel sides and ends formed on the arc of a circle and a shoulder for engagement with a face-plate, means for moving the bolt lengthwise, and the face-5° plate having an opening fitting the projection

on the end of said bolt.

5. In a lock-strike, a strike-plate, a faceplate attached thereto, a casing mounted on the strike-plate, a bolt located within the cas-55 ing and having a projection fitting an opening in the face-plate, and a shoulder to abut thereagainst, means for holding the bolt in engagement with the face-plate, and a shank from the bolt projecting through the wall of 60 said casing.

6. A strike-plate, a casing connected therewith and having an opening in its side for the reception of the end of the bolt of a lock, a

strike-bolt located within the casing and adapted to be engaged by the bolt of a lock 65 and having a projection through the opposite end of its casing to lock a movable part, and a movable part to be engaged by said projection.

7. A strike-plate, a casing mounted there- 70 on, a face-plate secured thereto and having an opening for a bolt and forming a stop therefor, a strike-bolt located within the casing with its end fitting the opening in the faceplate and a shoulder abutting against the un- 75 der surface thereof, the opposite end of the strike-bolt projecting through the strike-bolt casing to engage and lock a movable part having a socket for the reception of the end of the bolt projected from the casing.

8. A strike-plate, a case secured to the strike-plate, a bolt having at its end a reduced portion forming a shoulder, means for moving the bolt lengthwise, a separatelyformed face-plate attached to the strike-plate 85 and having an opening for the reception of the reduced portion of the bolt and forming a stop to engage said shoulder, and means for securing the face-plate and the strike-plate

together.

9. In a lock-strike, a strike-plate, a casing mounted on the strike-plate, a bolt having at its end a reduced non-circular projection forming a shoulder, means for moving the bolt lengthwise, a separately-formed face- 95 plate attached to the strike-plate and having an opening corresponding in shape to said reduced portion of the bolt, said face-plate forming a stop to engage said shoulder on the bolt, and means, for securing the face-plate 100 and the strike-plate together.

10. A strike-plate, a casing connected therewith and having an opening in its side for the reception of the end of the bolt of a lock, a strike-bolt located within the casing 105 in position for engagement by the bolt of a lock and having a part to be projected through the opposite end of its casing to engage and lock a movable part having a socket for the reception of said projecting end, and 110 means for holding the bolt at one limit of its play.

11. A strike-plate and a casing connected therewith, said parts being arranged to receive and engage the end of the bolt of a lock, 115 a strike-bolt located within the casing and adapted to be engaged by the bolt of a lock and having a projection through the opposite end of its casing to lock a movable part, and a movable part to be engaged by 120

said projection.

## HARRY P. TOWNSEND.

Witnesses:

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