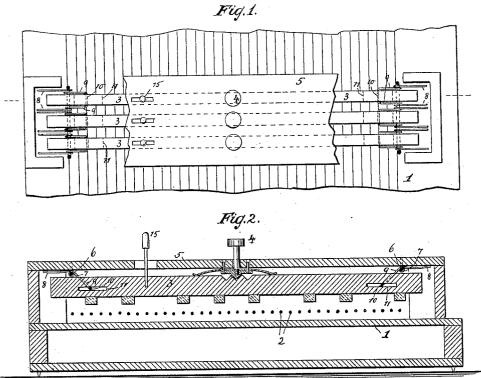
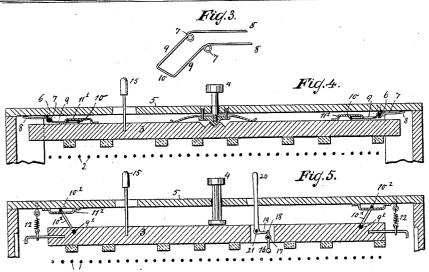
(No Model)

R. DOLGE.

No. 574,307.

Patented Dec. 29, 1896.





WITNESSES:

E. Wolff. Cha. E. Paeurgew. INVENTOR:

Rudolf Dolge.

Slaug : Hauf, ATTORNEYS.

## United States Patent Office.

RUDOLF DOLGE, OF NEW YORK, N. Y., ASSIGNOR TO THE C. F. ZIMMERMANN COMPANY, OF DOLGEVILLE, NEW YORK.

## HARP.

SPECIFICATION forming part of Letters Patent No. 574,307, dated December 29, 1896.

Application filed August 8, 1895. Serial No. 558,645. (No model.)

To all whom it may concern:

Be it known that I, RUDOLF DOLGE, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Harps, of which the following is a specifica-

The object of this invention is to simplify the construction of harps or stringed instru-10 ments, while producing an instrument of considerable scope; and the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in 15 which-

Figure 1 is a plan view of a harp. Fig. 2 is a sectional view of Fig. 1. Fig. 3 shows a spring or support. Figs. 4 and 5 show sec-

tions of modifications.

The harp or instrument has the soundingboard 1 and strings 2, the bar or manual 3 (one or more) being adapted to cut out, leave open, or contact with certain strings, a button or handle 4 enabling the bar to be moved 25 into a covering or damping or contacting position. The cover or piece 5 supports pivots 6, on which are supported or about which are coiled the eyes or spring parts 7 of supports 7 8 9 10, the tail or end pieces 8 of the sup-30 ports being braced against the cover 5 and the branches or links 9 and 10 being made to support the bar or manual 3. The link branches 10 are shown extended through slots 11 in the bar. By placing the slots 11 near 35 the end of the bar the supports can be easily placed so as not to obstruct or overhang the

The spring-supports 78910 normally hold the bar 3 out of damping, covering, or con-

40 tacting position.

The slots 11 allow the bar to be shifted or moved longitudinally on the supports, so that various effects can be produced, and the swinging supports 7 8 9 10 allow the bar or 45 manual to travel to damping, covering, or contacting position. The supports, it is noticed, not only support and permit movement of the bars toward and from the strings, but also guide the same while shifting.

Of course the invention is not restricted to

cations thereof are apparent. For example, in Fig. 4 the bar 3 has no slot like 11, but to the bar is secured a plate or holder 11', which forms a loose loop or engagement for the sup- 55 port portion 10, so that the damper-bar can shift.

In Fig. 5 the supports are shown in approximate ring form 9' 10' 102, the support portion 9' being jointed to the damper-bar 60 and the support portion 10<sup>2</sup> being loosely or shiftably engaged to the cover or top, as by

a loop or holder 112.

A spring or springs 12 normally hold the bar out of action. A convenient way of ap- 65 plying the springs is by supporting the latter from the cover and providing an eye-and-pin connection 13 14 or other shiftable or sliding connection between the bar and springs.

The bar or manual can be depressed by 70

handle 4 and shifted by handle 15.

By providing a bar with a hammer, as 16, (shown in Fig. 5,) a string can be struck or sounded by the hammer when the bar 3 is depressed or in active position. Said hammer 75 is jointed or pivoted to the bar at 17 and has its tail 18 extended into the path of arm 19 of the lever 19 20, fulcrumed to the bar at 21. By actuating the lever the hammer 16 can be swung or oscillated to strike or sound a string. 80

The construction shown possesses an advantage in that it enables the entire length of the bar or manual to be provided with dampers or contactors, the supports engaging the bar clear of or above its damping-face and at 85 some distance from its ends or within the limits of the bar proper, that is, within the limits along which dampers or contactors can be applied, so that the bar need project but slightly, if at all, beyond the strings, and go with a shiftable bar, when the bar arrives at the limit of shift in one direction or another, one of its ends can lie flush with the adjacent end string of the instrument. The bars or manuals can thus be shortened or, what is 95 the same thing, the entire length of the bars or manuals can be used for the support of dampers or contactors.

What I claim as new, and desire to secure by Letters Patent, is-

1. In a harp, the combination with strings, the particular construction shown, as modifi- | of a shiftable bar or manual, and a swinging

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support for the bar or manual, substantially as described.

2. In a harp the combination with strings, of bars crossing said strings, and swinging 5 supports for the bars, said bars being made shiftable on the supports substantially as described.

3. In a harp the combination with strings, of bars crossing said strings, and swinging to supports to which the ends of the bars are shiftably attached substantially as described.

4. In a harp, the combination with strings, of a shiftable bar or manual, and spring links or supports made to engage the bar clear of or above its damping or contacting face while leaving said bar or manual clear or unobstructed along the line of its damping or contacting face, substantially as described.

5. In a harp the combination with strings,20 of a swinging spring-support and a shiftable bar carried by the support substantially as

described.

6. In a harp the combination with springs of a shiftable bar, and swinging supports

therefor, said supports serving not only to 25 support and permit movement of the bar toward and from the string, but to guide the same while shifting substantially as described.

7. The combination with a stringed instru- 30 ment, of a bar having a swinging support, and a hammer carried by and independently movable of said bar and adapted to engage or leave open a string or strings substantially as described.

8. The combination with a stringed instrument of a shiftable bar having a swinging support, and a hammer carried by and independently movable of said bar and adapted to engage or leave open a string or strings 40 substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing

witnesses.

RUDOLF DOLGE.

Witnesses:

WM. C. HAUFF, E. F. KASTENHUBER.