## L. HABERKAM. CARILLON.

No. 428,207.

Patented May 20, 1890.

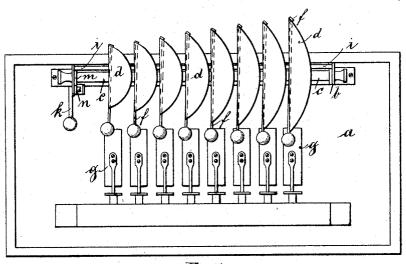


Fig.1.

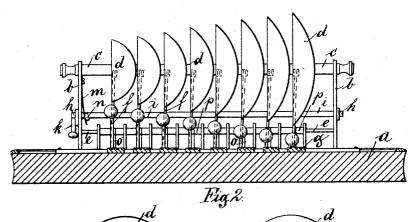


Fig. 3. Ob Fig. 4.

29 Xmeries: G.S. Burnham H. H. Stephendo. Endwig E Caberham per Heinrich Lade OXXXveneig

## UNITED STATES PATENT OFFICE.

LUDWIG HABERKAM, OF LEIPSIC, SAXONY, GERMANY.

## CARILLON.

SPECIFICATION forming part of Letters Patent No. 428,207, dated May 20, 1890.

Application filed August 23, 1889. Serial No. 321,744. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG HABERKAM, a subject of the King of Saxony, residing at the city of Leipsic, Saxony, German Empire, have invented certain new and useful Improvements in Carillons; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains 10 to make and use the same.

My invention relates to means for the mechanical playing of gongs or bells, in which by the lifting of a valve, besides the sound produced by lifting of the valve, a gong or bell

15 is struck.

The invention consists in an arrangement of hammers swinging freely on a shaft, which hammers are impelled against the bells by striking levers, and of a frame which oper-20 ates on all the hammers and can move them so far from the striking levers as to render contact between hammers and levers impossible.

In the accompanying drawings, Figure 1 is 25 a top view; Fig. 2, a section taken through the keys, together with a view of the peal of bells placed behind; Fig. 3, a side view with key not struck, and Fig. 4 a side view with struck

On plate a are fixed two standards b, carrying shaft c, on which the gongs d are mounted, also shaft e, on which the hammers f are mounted. These extend to the valves and have eyes p, by which they are carried on 35 shaft e, so as to allow of their free motion round the same. They are consequently impelled against the gongs d upon the ascent of valves g. On each of the standards b there is also a pivot h, on which a frame i may be turned by means of lever k. The frame i acts upon that part of the hammers f which pro-

jects beyond shaft e, so that when pressed down through lever k the hammers are so raised that the valves g cannot come in contact with them. In order for the time being 45 to fix the frame i in the desired position, there is arranged on one of the standards b a spring m, furnished with lug n, which bears against frame i, and so keeps it in its place. The hammers f are formed with extensions, which 50 act as sound-dampers, they being covered over with cloth and bent to such a shape as will permit of their lying against the gongs upon the descent of the hammers.

Small springs o keep the hammers f pressed 55 against the valves g when the frame i is not turned down. In Figs. 3 and 4 the position of the hammers f, when moved away from valves gby frame i, is shown in dotted lines; hence it will be seen that valves g may perform any de- 60 sired stroke without coming in contact with the hammers, so that however energetically the keys may be struck the gongs will not sound.

Having now particularly described and ascertained the nature of my said invention 65 and in what manner the same is to be performed, I declare that what I claim is-

1. The hammers ff, mounted on shaft e, in combination with valves g g and with gongs  $d\ d$  on shaft c, for the purpose specified, sub- 7c stantially as described and shown.

2. The frame i, in combination with hammers ff and shaft e, for the purpose specified, substantially as described and shown.

In testimony whereof I sign this specifica- 75 tion in the presence of two subscribing witnesses.

LUDWIG HABERKAM.

Witnesses:

CARL BORNGRAEBER, ERNST SCHOLZ.