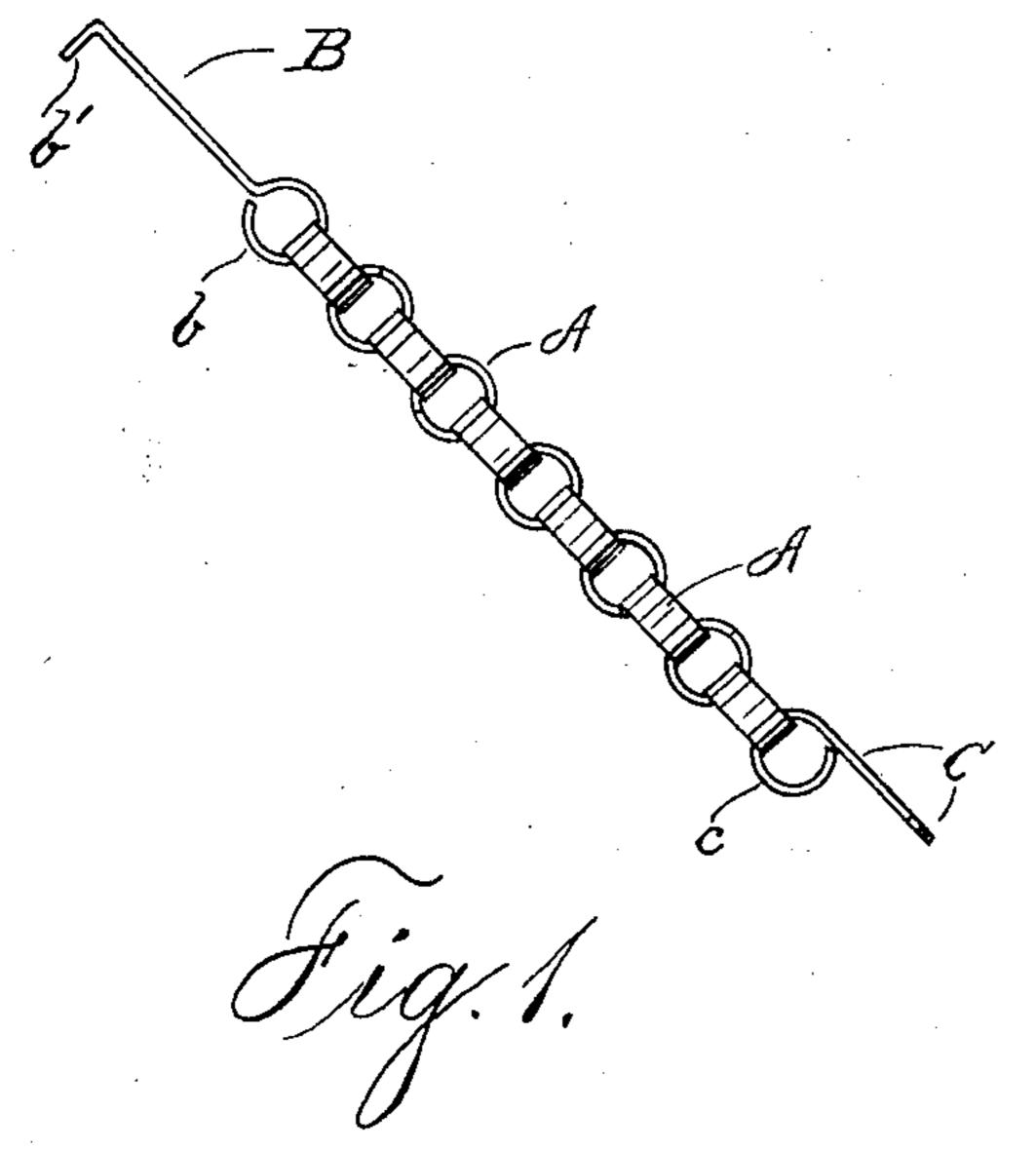
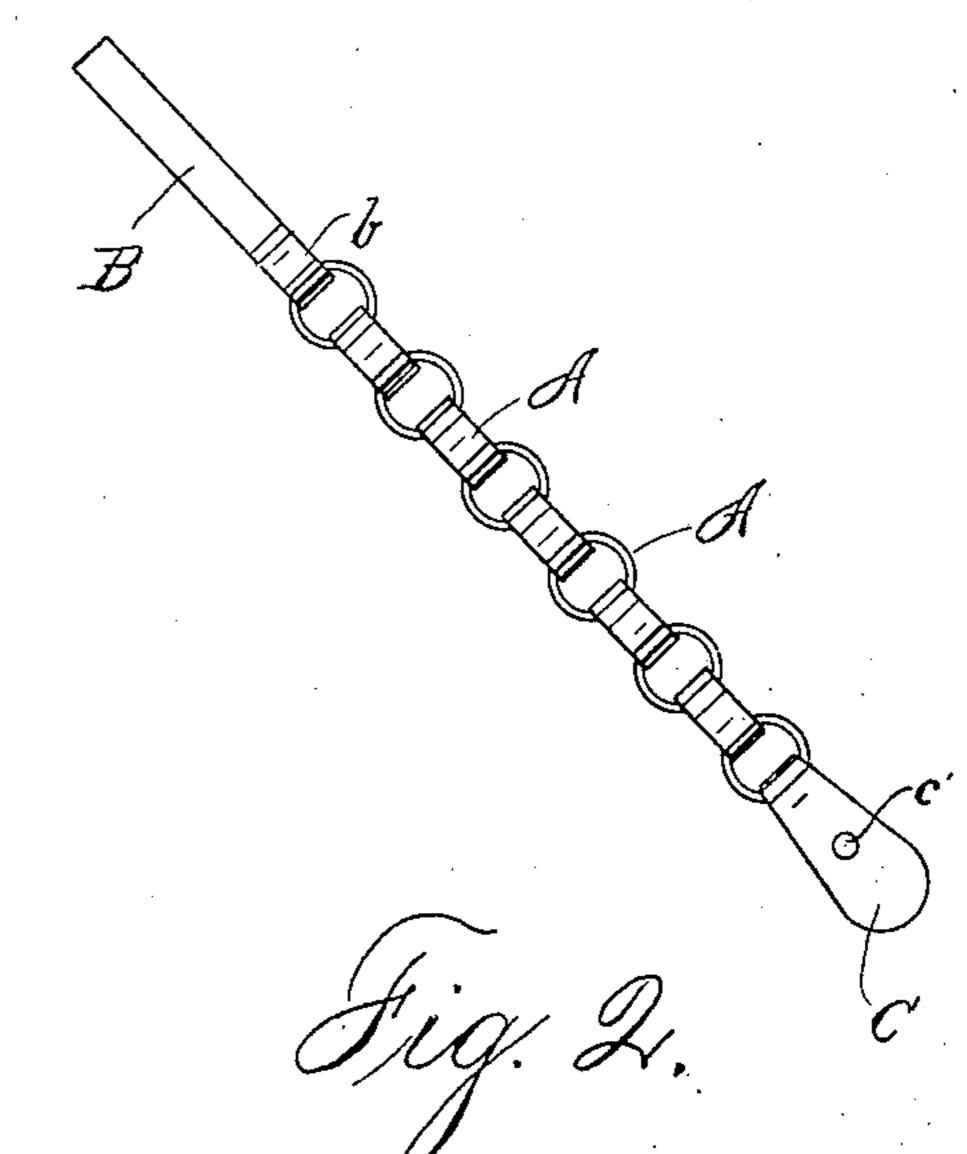
A. H. STEVENS. BRIDLE FOR PIANOFORTE ACTIONS.

(Application filed Apr. 24, 1900.)

(No Model.)





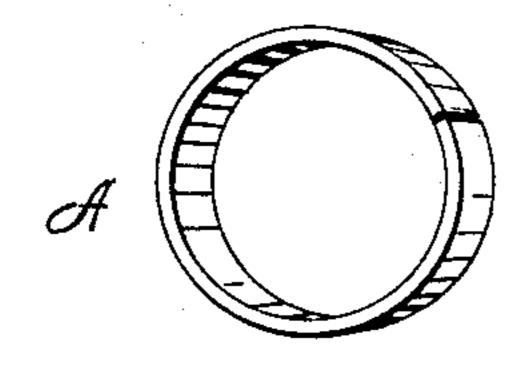
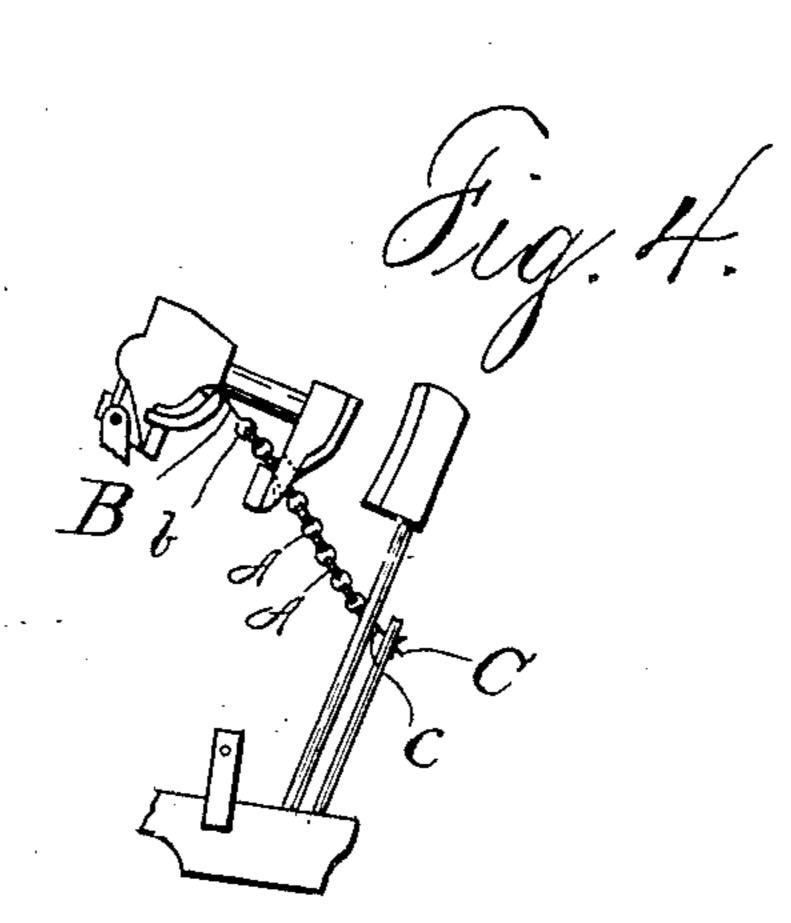


Fig. 3.



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BRIDLE FOR PIANOFORTE-ACTIONS.

SPECIFICATION forming part of Letters Patent No. 663,644, dated December 11, 1900.

Application filed April 24, 1900. Serial No. 14,112. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER HAMELTON STEVENS, a citizen of the United States, residing at Thomasville, in the county of Thomas and State of Georgia, have invented certain new and useful Improvements in Bridles for Pianoforte-Actions; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 My invention relates to improvements in bridles for pianoforte-actions, with especial reference to the material used in construction and the form of the terminals, whereby the device is rendered easy in attachment, 20 detachment, and replacement, also elastic and positive in action, and stable in adjust-

ment.

The objects of my invention are attained by the mechanism illustrated in the accom-

25 panying drawings, in which—

Figure 1 is an enlarged view of the bridle, showing the edges of the terminals. Fig. 2 is a similar view as viewed at a quarter-turn. Fig. 3 is an enlarged detail view of one of the elastic metallic links; and Fig. 4 illustrates the attachment of the bridle to the action, showing the contiguous parts of the mechanism controlled thereby, together with felting where the bridle-chain is supported when slack.

Like letters of reference denote corresponding parts in the several views of the drawings.

A A illustrate the links of my bridle-chain, which are constructed of metal of appropriate 40 strength and elasticity, and their ends although not united are yet approximately in contact in each link, except when under stress.

B illustrates the terminal of the bridle-chain, by which connection with the butt is effected. One end of this terminal is formed into a link b and at the other end is turned at an angle, forming the projection b'.

C is the other terminal of the bridle-chain, connecting with the chain proper by means of the link formation c, similar to the link

formation b at one end of the terminal B. The link c is continued at one end, forming the terminal C, which is broadened and perforated at c'. This formation at c' affords the means of connecting the bridle-chain to 55 the bridle-arm.

The bent terminal B of my bridle-chain is hooked in place where the old-form bridle-tape is usually secured to the butt, and the other end of my bridle-chain is secured to the 60 bridle-arm at its enlarged and punctured end C. Positive freedom from rattling and all other noise is claimed for the bridle-chain as shown and described.

The utility of the device in other respects 65 suggests itself—cheapness, durability, security from destruction by vermin, strength, and in adjustment quick and stable.

Having described all that is necessay to a full and complete understanding of my in-70 vention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A bridle-chain for pianoforte-actions, consisting of flexible metallic links, the ends of each link being brought together but not 75 united, a terminal link extended into an arm crooked for connection with the butt by insertion into a slot therein provided, and a terminal link at the other end of the chain extended into a broadened punctured tongue 80 adapted to be secured to the bridle-arm by ordinary method, all substantially as shown and described.

2. In combination with the butt and bridlearm of a pianoforte-action; a bridle-chain 85 consisting of flexible metallic links, the ends of each link being brought together but not united, a terminal link extended into an arm crooked for connection with the butt by insertion into a slot therein provided, and a 90 terminal link at the other end of the chain extended into a broadened punctured tongue, substantially as shown and for the purpose specified.

In testimony whereof I affix my signature 95 in presence of two witnesses.

ALEXANDER HAMELTON STEVENS.

Witnesses:

ROYALL J. MILLER, L. S. DRIVER.