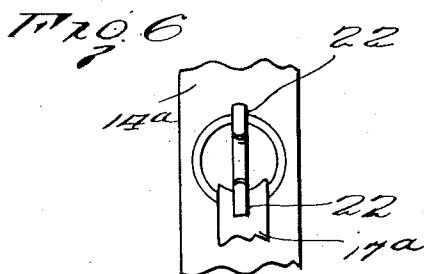
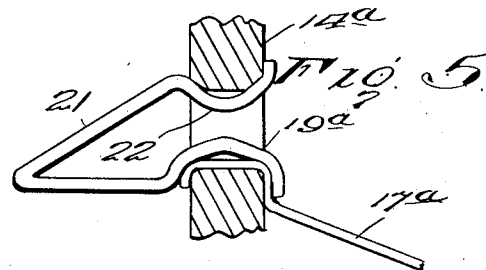
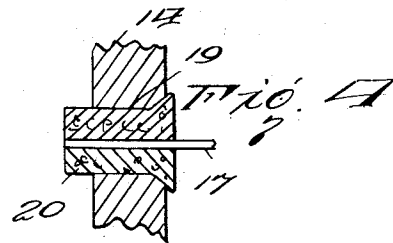
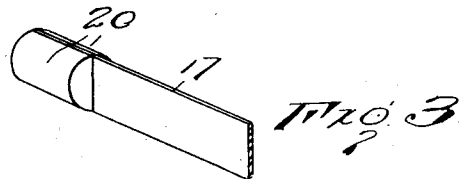
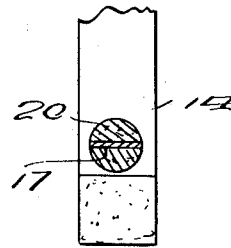
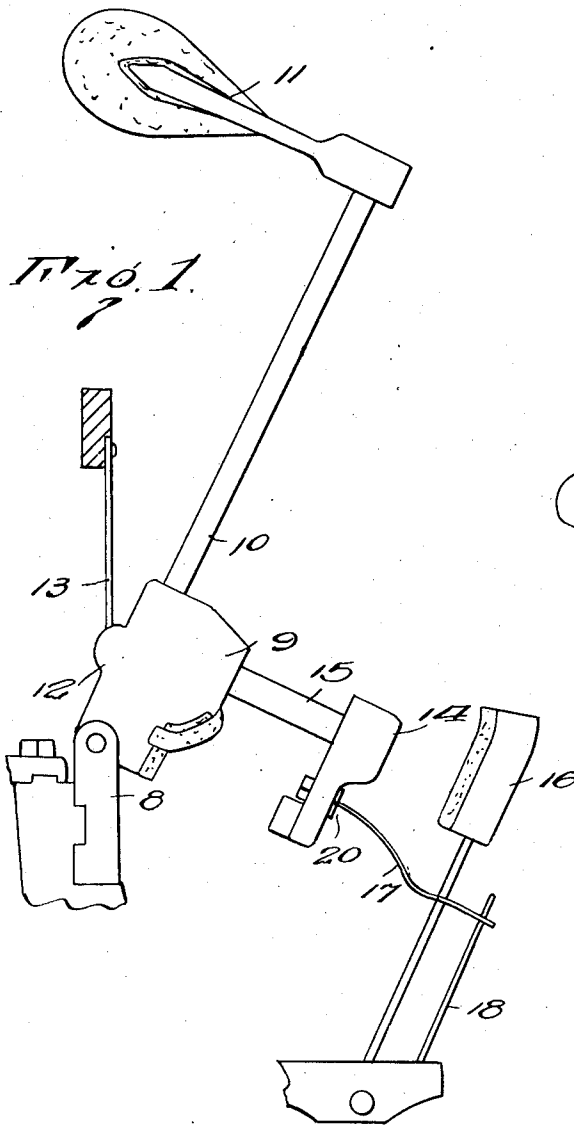


T. J. MALCOLM.
PIANO BRIDLE STRAP FASTENER.
APPLICATION FILED MAR. 17, 1919.

1,343,516.

Patented June 15, 1920.



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PIANO-BRIDLE-STRAP FASTENER.

Specification of Letters Patent. Patented June 15, 1920.

1,343,516.

Application filed March 17, 1919. Serial No. 283,227.

To all whom it may concern:

Be it known that I, THOMAS JEFFERSON MALCOLM, a citizen of the United States, residing at Okmulgee, in the county of Okmulgee and State of Oklahoma, have invented certain new and useful Improvements in Piano-Bridle-Strap Fasteners, of which the following is a specification.

In upright piano actions the bridle strap connecting the hammer butt or check with the bridle wire is frequently broken and in the present types of piano actions it is an extremely tedious and difficult operation to replace the broken strap, owing to its inaccessibility and to the impractical type of fastening employed. It is therefore the object of the present invention to provide an extremely simple and practical fastener for the terminal of the bridle strap which is connected with a conveniently accessible part of the hammer check.

Another object is the provision of a fastener which affords a rigid anchorage for the terminal of the bridle strap yet permits of the quick and convenient removal of the fastening device to permit of the application or replacing of a broken strap.

With the above and other objects in view as will appear as the description proceeds, the invention comprises the novel features of construction, combination of elements and arrangement of parts which will be more fully described in the following specification and set forth with particularity in the claim appended hereto.

In the drawings:

Figure 1 represents a detailed sectional view through a piano showing a conventional type of piano action and the invention applied thereto,

Fig. 2 represents a fragmentary front elevation of the hammer check, the strap being in section,

Fig. 3 represents a perspective view of the strap fastener, a fragment of the strap being applied thereto,

Fig. 4 represents a fragmentary vertical sectional view through the strap and fastener,

Fig. 5 represents a similar view through the hammer check illustrating a modified form of the strap fastener, and

Fig. 6 represents a fragmentary front ele-

vation of the hammer check illustrating the modified type of fastener.

Referring to the drawings in detail, and particularly to Fig. 1 wherein is illustrated a conventional type of piano action, the numeral 8 indicates the usual action rail pivotally supporting one of a series of butts 9 carrying the shank 10 to which the hammer 11 is attached. The recessed projection 12 at the rear of the hammer butt is engaged by the usual butt spring 13 and the check 14 is attached to the butt 9 by the reduced shank 15 and is movable against the back check 16 during the return movement of the hammer 11. The bridle strap 17 is attached at one terminal to the check 14 and at its opposite end to the bridle wire 18 and in the present types of piano actions the strap is usually permanently attached by glue between the joints of the butt 9 and the shank 15 and is extended through an aperture 19 formed in the check 14.

The present invention provides an improved detachable fastener for the terminal of the bridle strap 17 and comprehends the utilization of the opening 19 in the check 14 for the reception of the fastening means.

One type of the improved fastener consists of a compressible plug 20 constructed of cork or similar material having the equivalent compressible and adhesive qualities of cork and the plug is formed in two substantially semi-cylindrical sections and is preferably tapered from end to end to facilitate its insertion in the opening 19. The terminal of the bridle strap 17 is engaged between the semi-cylindrical plug sections and is subsequently forcibly inserted in the opening 19, frictionally gripping the interior of the opening to effectively prevent the displacement of the plug and gripping the terminal of the strap 17 to securely anchor the latter in position. In the modification illustrated in Figs. 5 and 6 the terminal of the bridle strap 17 is quickly slipped into the opening 19^a of the check 14^a and is releasably fastened in position by the spring wire fastener 21 which includes a substantially U-shaped body having the terminals of the divergent legs oppositely bowed as indicated at 22 to coact with the internal edge of the opening 19^a and firmly clamp the terminal of the bridle strap

17 therein. The exposed portion of the V-shaped body affords a convenient hand grip facilitating compression of the fastener and its subsequent removal from the check and
5 the removal and replacement of the strap.

What I claim is:

The combination with a piano action having a hammer butt provided with a countercheck formed with an opening, of a removable
10 able bridle strap comprising a member having

ing a perforation near one end for accommodating a bridle wire to permit detachable connection of said member therewith, and compressible means constructed and arranged to be received in the opening in the countercheck for removably securing the other end of said member therewith.

In testimony whereof, I affix my signature hereto.

THOMAS JEFFERSON MALCOLM.