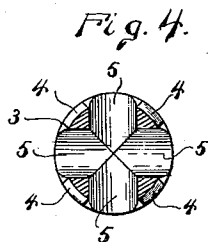
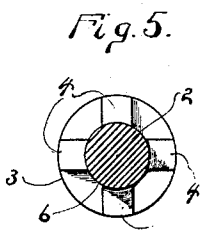
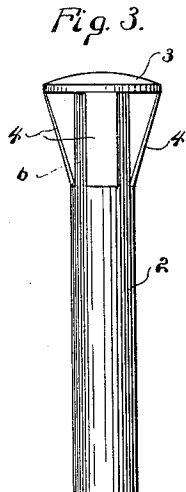
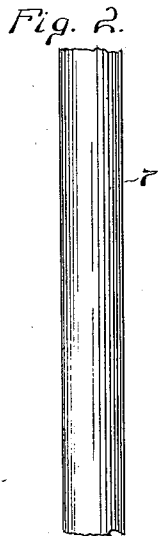
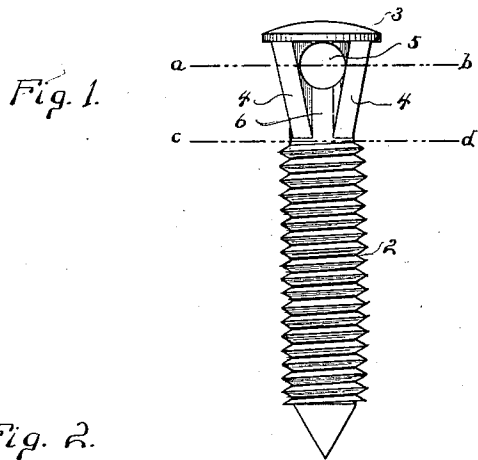


A. C. RECKER.
CAPSTAN SCREW.
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1,024,100.

Patented Apr. 23, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

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CAPSTAN-SCREW.

1,024,100.

Specification of Letters Patent.

Patented Apr. 23, 1912.

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To all whom it may concern:

Be it known that I, ADOLPH C. RECKER, a citizen of the United States, residing at Oakville, in the county of Litchfield and State of Connecticut, have invented a new and useful Improvement in Capstan-Screws; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a view in side elevation of a capstan screw constructed in accordance with my invention. Fig. 2 a view in side elevation of the wire blank from which the screw is swaged. Fig. 3 a corresponding view showing the blank after the swaging operation. Fig. 4 a view of the head of the completed screw in transverse section on the line *a—b* of Fig. 1, looking upward. Fig. 5 a corresponding view on the line *c—d* of Fig. 1.

My invention relates to an improvement in that class of screws made for use in the construction of piano-actions and technically known to the piano-action trade as capstan screws, the object being to produce at a low cost for manufacture, a capstan screw which shall be at once compact and convenient, and present a neat and workmanlike appearance.

With these ends in view, my invention consists in a capstan screw having certain details of construction as will be hereinafter described and particularly recited in the claim.

My improved capstan screw, as herein shown, consists of a threaded and pointed shank 2 surmounted by an integral tapering head comprising a rounded cap or top 3 surmounting four inclined or diverging peripheral arms 4 arranged equidistant from each other and separated at their upper ends by four holes 5 the inner ends of which intersect each other at the longitudinal center of the screw, and the outer ends of which extend to the outer edges of the said peripheral arms 4 which by the said holes are given a triangular cross-section as shown in Fig.

4, at points above the bottoms of the holes. The said arms 4 may be said to unite the edge of the cap 3 to the shank of the screw. The holes 5 are provided for receiving the pin by which the screws are turned as required in adjusting the action. The lower ends of the arms are inclined with respect to the body 6 of the head, the said body corresponding in diameter to the diameter of the blank in its original form and being therefore smaller than the over-all diameter of the threaded shank of the screw which is increased in diameter by having the threads rolled into it as shown in Fig. 1.

In producing my improved capstan screw, I first subject a plain wire blank 7, as shown by Fig. 2, to a swaging operation for forming the cap or top 3, and the diverging peripheral arms 4 which are produced without reducing the blank in diameter and therefore without weakening it. The swaged blank is then transversely bored at a right angle to its axis for the production of the holes 5 and rolled for the production of threads upon its shank 2. There being little or no displacement of the metal of the blank 7 where the peripheral arms 4 merge into the shank portion of the blank, my improved screw is made not only strong and durable, but also compact.

I claim:—

A capstan screw for use in piano actions, the said screw consisting of a threaded shank and an integral head, which latter comprises a cap or top and a plurality of peripherally arranged arms diverging from the shank and connecting the edge of the said cap with the said shank, and separated from each other by transversely arranged holes located directly beneath the said cap and extending to the outer edges of the said arms and arranged at a right angle to the axis of the screw.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ADOLPH C. RECKER.

Witnesses:

FREDERICK G. MASON,
J. P. MARSHALL.