

D. L. DAY.

BANJO.

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928,948.

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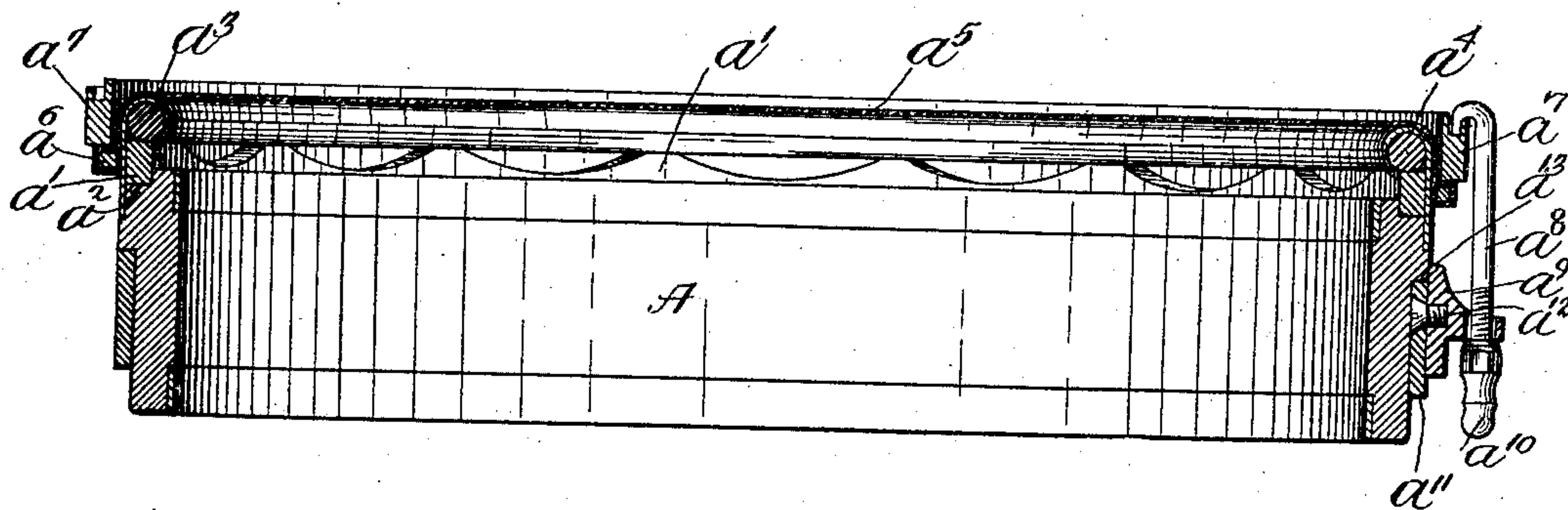


FIG. 1.

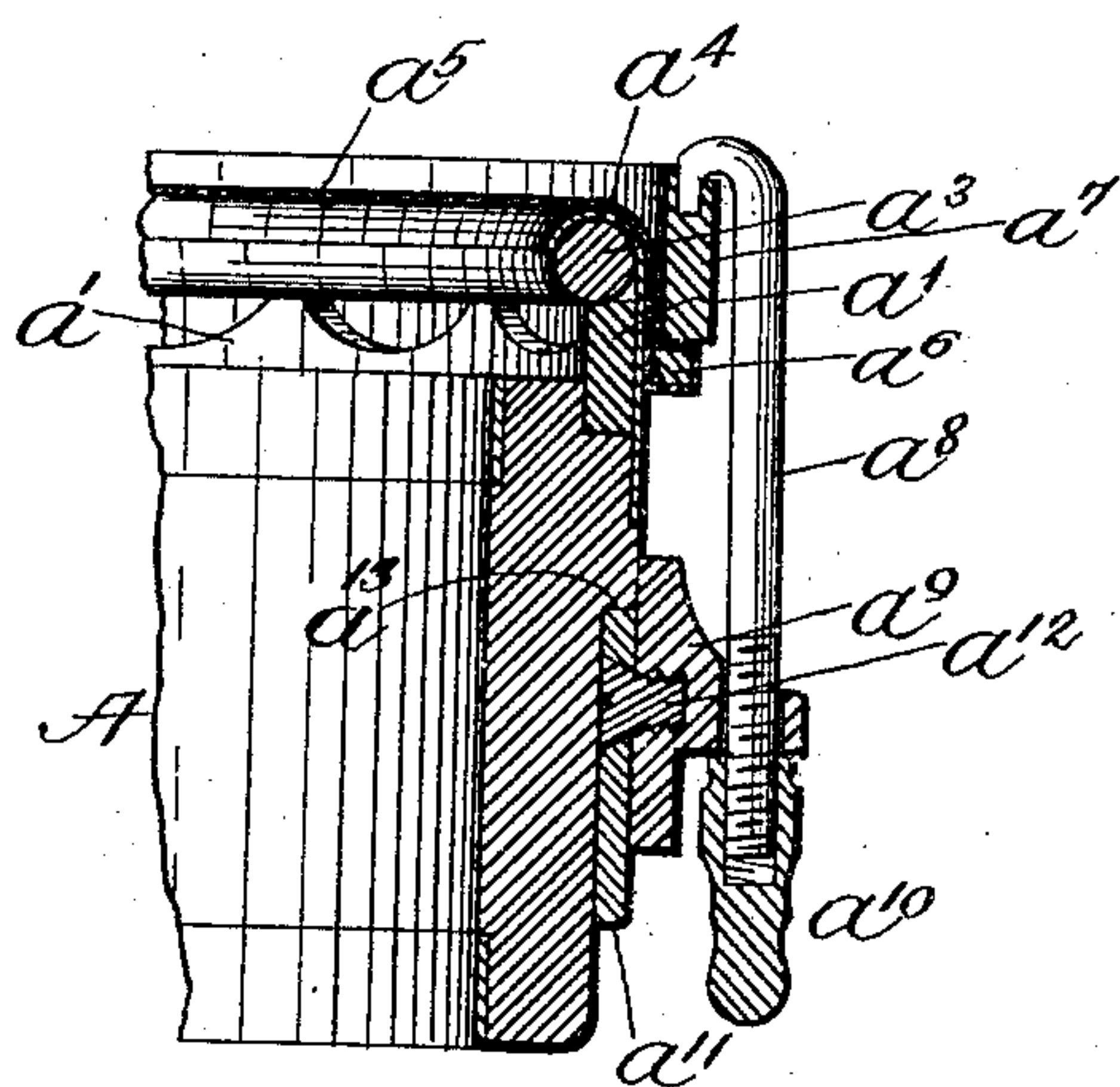


FIG. 2.

WITNESSES.

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BANJO.

No. 928,948.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DAVID L. DAY, of Revere, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Banjos, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

My invention relates to an improved means for stretching and retaining the head of a banjo whereby its tone is improved.

It will be understood that the mode of retaining the head of a banjo constitutes an important element in determining its tone efficiency. The common expedient employed for stretching and retaining the head consists of clamps independently secured to the shell of the banjo by means of bolts passing through the shell and secured by nuts on the inside thereof. The inexpediency of this mode of fastening resides, as I have determined, in the fact that every hole made in the shell of the banjo detracts from its tone value. Then again, the wood of which the shell is made is extremely susceptible to atmospheric changes which cause the shell to shrink or expand whereby it is made to become a somewhat unstable fixture for the clamp-retaining bolts and causes an insecurity or rather looseness in the fastenings for retaining the head and injures the banjo, causing it to sound with a dry, metallic tone.

The practice formerly employed was to retain the head by securing its stretching and retaining clamps to an outside body casing or guard secured to the shell of the banjo by turning in the ends of the casing over the top and bottom edges of the shell. When the shell shrunk, as it was likely to do under certain atmospheric conditions, the casing became loosely supported, with the effect that such mode of fastening was found to be impracticable and so abandoned by makers of first-class instruments.

It is accordingly the object of my invention to provide a mode of fastening which will leave the shell of the banjo intact; which will provide a common stable fixture of support for all the clamps for stretching and retaining the head, and which support will connect with or be mounted upon the wooden shell of the banjo so as to be practically im-

pervious to changes in the shell caused by atmospheric conditions.

My invention can best be seen and understood by reference to the drawings, in which—

Figure 1 shows in vertical cross section the body of a banjo fitted with my improved means of fastening. Fig. 2 shows in vertical cross section an enlarged detail thereof.

Referring to the drawings:—A represents the wooden shell furnishing the main portion of the body of the banjo. On this is mounted a ring a^1 . This ring fits into an annular incision or groove a^2 cut in the upper edge of the shell. On the ring a^1 is mounted a band wire a^3 . Turning in over this wire and extending down alongside the ring a^1 and partly onto the side of the wooden shell, is an annular guard a^4 .

a^5 represents the head of the banjo which extends over the annular edge formed by the guard a^4 and turns down alongside this guard. On the down-turned edge of the head is secured an annular boss a^6 by which the head may be stretched and held tightly in place. Adapted to bear against this boss is a ring a^7 . This is drawn against the boss a^6 for stretching and retaining the head by means of a series of clamps a^8 which extend through clamp members or brackets a^9 to which the clamps are adjustably secured by means of clamping nuts a^{10} . The clamp members a^9 holding the clamps are secured to a hoop a^{11} by means of screws a^{12} passing through from the inner side of the hoop and fastening into the respective clamp members. The hoop a^{11} comprises an annular metal band that fits snugly around the wooden shell clear of the ends thereof and which shell, also, at the point where it receives the bearing of the hoop is incised in such a manner as to provide a shoulder a^{13} against which the upper edge of the hoop is adapted to bear. It is obvious that upon tightening the clamping nuts the head of the banjo may be stretched and held tightly in place.

With respect to the hoop to which the clamp-retaining brackets are secured and which when the clamps are tightened is adapted to draw against the annular shoulder a^{13} formed on the shell, attention is first called to the fact that this hoop furnishes a unitary support for all the brackets with-

out boring holes through the wooden shell. The improved support for the brackets being unitary, any distortion or change in the shape of the shell due to atmospheric conditions, were it to affect the clamps at all, would not affect a portion of them but all of them uniformly inasmuch as it must affect them through the hoop with which all the clamps connect. In fact, any change or distortion in the wooden shell would not appreciably affect the hoop and clamps so as to affect the tone of the instrument for the reason that the lateral shrinkage or expansion of the shell would have no effect on the hoop, while if the shell were to be longitudinally expanded or contracted the only portion thereof which would affect the hoop would be the portion included between the shoulder ^a against which the hoop is bearing and the upper edge of the shell. By reason of this constituting so small a portion of the shell and by reason, also, that the lower edge of the shell is left free for its longitudinal expansion or contraction, any change in the shell would have no appreciable effect upon the hoop and connecting clamps.

A banjo fitted with the mode of fastening

described for stretching and retaining the head develops and maintains under all conditions tones not only of great brilliancy and ring but also tones that are resonant and sustaining, full of volume and of great carrying power.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States:—

1. In a banjo, the combination of a shell, a hoop fitting snugly around said shell clear of the top and bottom ends thereof, a head and means for stretching and retaining said head from said hoop.

2. In a banjo, the combination of a wooden shell having a shoulder formed thereon, a ring mounted on the end of said shell, a head extending over said ring, clamps for stretching and retaining said head, a hoop snugly embracing said shell clear of the ends thereof and bearing against said shoulder formed thereon, and means for retaining said clamps from said ring.

DAVID L. DAY.

In presence of—

JOHN E. R. HAYES,
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