

(No Model.)

F. E. COLE.
BANJO.

Patented Jan. 30, 1894.

No. 513,761.

FIG. 1-

WITNESSES.

J. W. Cole
M. Lynch

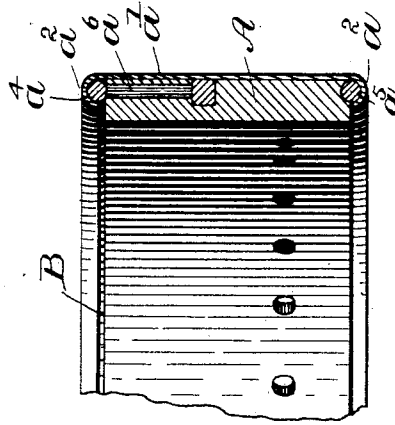
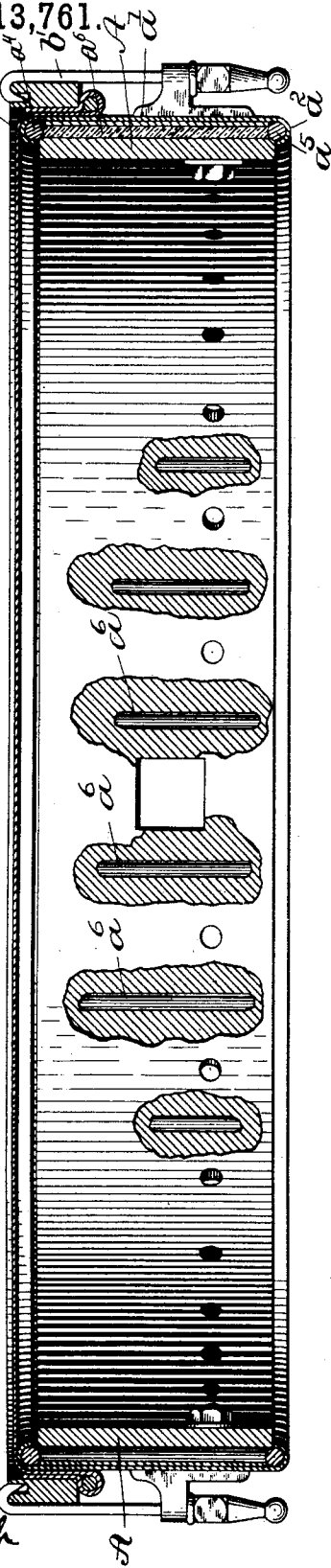


FIG. 3-

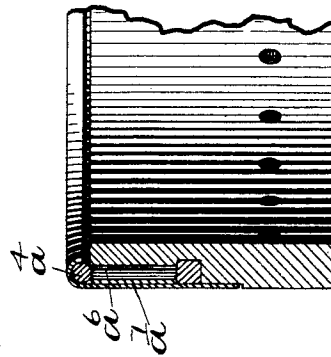


FIG. 2-

INVENTOR-

Frank E. Cole
by his atty
Clark & Raymond

UNITED STATES PATENT OFFICE.

FRANK E. COLE, OF BOSTON, MASSACHUSETTS.

BANJO.

SPECIFICATION forming part of Letters Patent No. 513,761, dated January 30, 1894.

Application filed March 30, 1893. Serial No. 468,259. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. COLE, a citizen of the United States, residing at Boston, in the county of Suffolk, in the State of Massachusetts, 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.

The invention relates to the herein described improvement in banjos, whereby, the vibration and tone effect of the instrument are very materially improved.

In the drawings Figure 1 is a view in section through the drum of a banjo having the features of my invention, and Figs. 2 and 3 are detail sectional views illustrating a slight modification, to which reference is hereinafter made.

The head of the banjo comprises a ring A of wood, about which is a barrel or sleeve a' of metal. This sleeve or barrel has its edges a^2 bent inward over the wire rings a^4 a^5 . These rings may be upon each edge of the wooden ring A, or one of the rings may be on the edge of the ring A, and the other in an annular recess about the barrel (see Fig. 2), and there extend through the ring A, between the wires a^4 a^5 the metal rods or cross pieces a^6 , preferably round in form, and preferably bearing against each ring. The parch-

ment covering, B, of the head is strained upon it by the straining ring screws b' in the usual way.

In Fig. 3 I have represented the metal sleeve a' as entirely covering the outer edge of the ring A, and as turned inward at its edges upon its wire rings; and I have also shown therein an additional ring in a recess in the barrel A, and the rods a^6 extending through the barrel from this ring to one of the outer rings.

It will be understood that the wires or rods a^6 are held in contact with the rings at each end thereof by the binding action of the sleeve a' . This metallic contact of the wires a^6 and rings thus obtained very materially improves the effectiveness of the banjo. On some accounts I prefer that the rings a^4 a^5 be let into recesses formed in each edge or corner of the barrel A.

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

In a banjo or other musical instrument the combination of the ring A, the wire rings, the metal barrel a' having its edges a^2 a^3 bent or folded, as specified, and the cross metal rods or pieces a^6 , as and for the purposes described.

FRANK E. COLE.

Witnesses:

F. F. RAYMOND, 2d,
J. M. DOLAN.