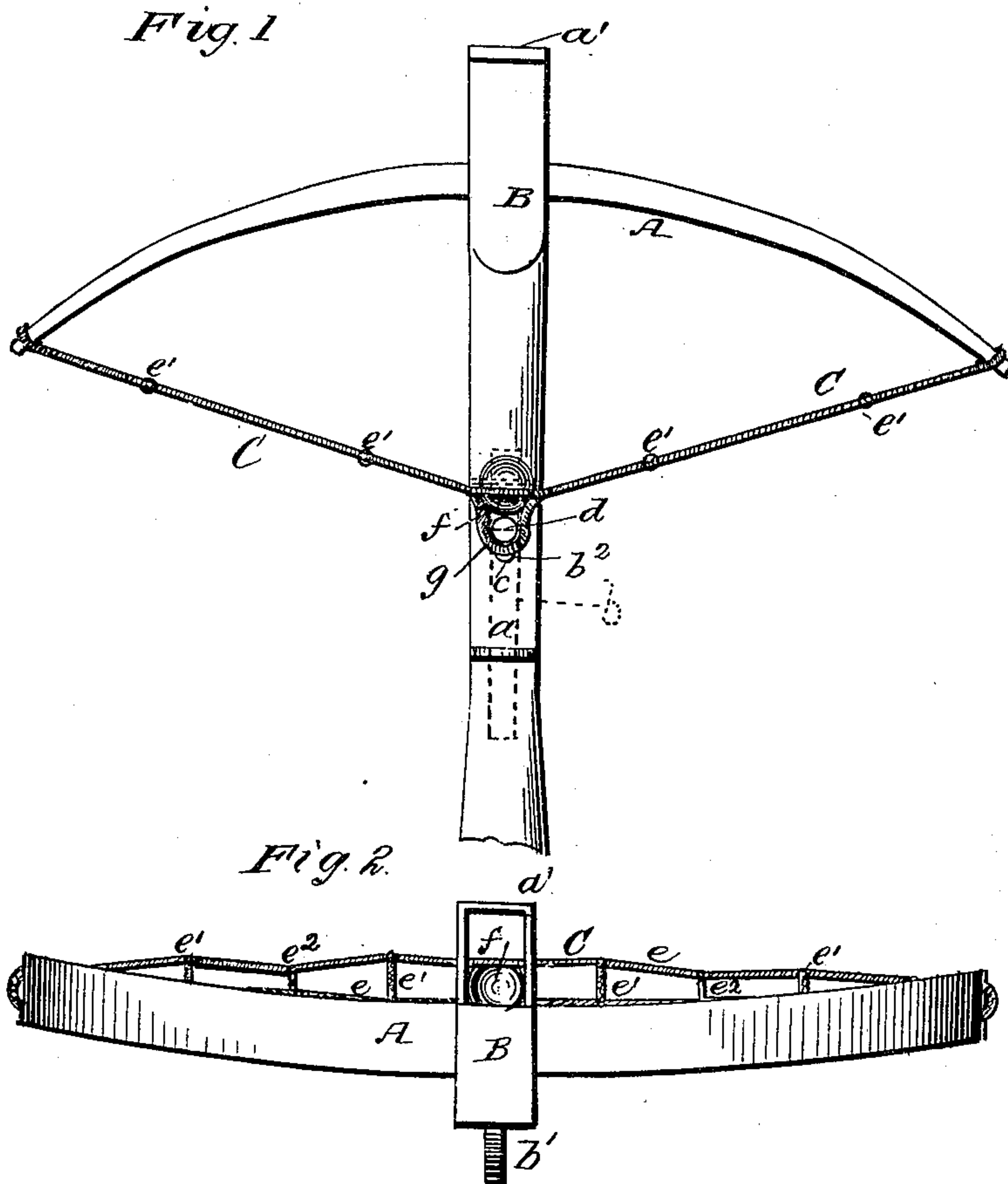


(No Model.)

C. SANFTLEBEN & H. RUSSEL.
Cross Bow.

No. 230,896.

Patented Aug. 10, 1880.



WITNESSES
Fred. G. Dutcher
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UNITED STATES PATENT OFFICE.

CHARLES SANFTLEBEN AND HERRMANN RUSSEL, OF DETROIT, MICHIGAN.

CROSS-BOW.

SPECIFICATION forming part of Letters Patent No. 230,896, dated August 10, 1880.

Application filed July 10, 1880. (No model.)

To all whom it may concern:

Be it known that we, CHARLES SANFTLEBEN and HERRMANN RUSSEL, of Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Archery; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan view of our improved bow, and Fig. 2 is a front view of the same.

This invention appertains to improvements in archery, more particularly bows for propelling through the air a limited distance an arrow or ball either as an instrument for amusement or as a weapon; and it consists, mainly, in the construction of the string, the actuating or propelling agent, substantially as herein-after more fully set forth.

Referring to the drawings, A indicates the bow firmly seated in the stock B, provided with a sight, *a*, between the handle and the string or trigger, and a graduating-sight, *a'*, at the outer end. The stock is also provided with a trigger, *b*, with its handle *b'* below the stock, and having a vertically-sliding pin or stud, *b²*, projecting up through a hole or slot, *c*, in the stock, directly behind the holding-pin *d* of the string.

To the ends of the bow A is attached the string C, which constitutes the arrow or ball actuating or propelling agent. This string is composed of two wrapped stringers, *e e*, one

arranged above the other, with braces or studs *e' e'* secured to and between and holding them at intervals, particularly at the center, a part, while at the intermediate points they are tied together, as at *e² e²*, imparting strength and giving body to the string.

At the center or widest-spaced portion of the string is attached a skin pocket, *f*, to receive and in a measure embrace or hold the end of the arrow or ball placed therein, to be expelled as the string is released from the stud or pin *d*.

To the rear side of the string and the skin pocket *f* is fastened the holding-loop *g*, which, when the string is drawn back under tension, is caught over the stud or pin *d*. This bow is effective and positive in its action, which are desiderata in this class of instruments.

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

The combination, with the stock B and its holding-pin *d* and trigger *b*, of the bow having the string C, with its spaced stringers *e e*, provided at the center with a pocket, *f*, and at the rear side thereof with a holding-loop, *g*, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

CHARLES SANFTLEBEN.
HERRMANN RUSSEL.

Witnesses:

F. W. DUVERNOIS,
FRANZ SCHMIDT.