(No Model.)

A. M. CHOUVELON.

SHUTTLE BOW AND CONDUCTOR.

No. 573,861. Patented Dec. 29, 1896.

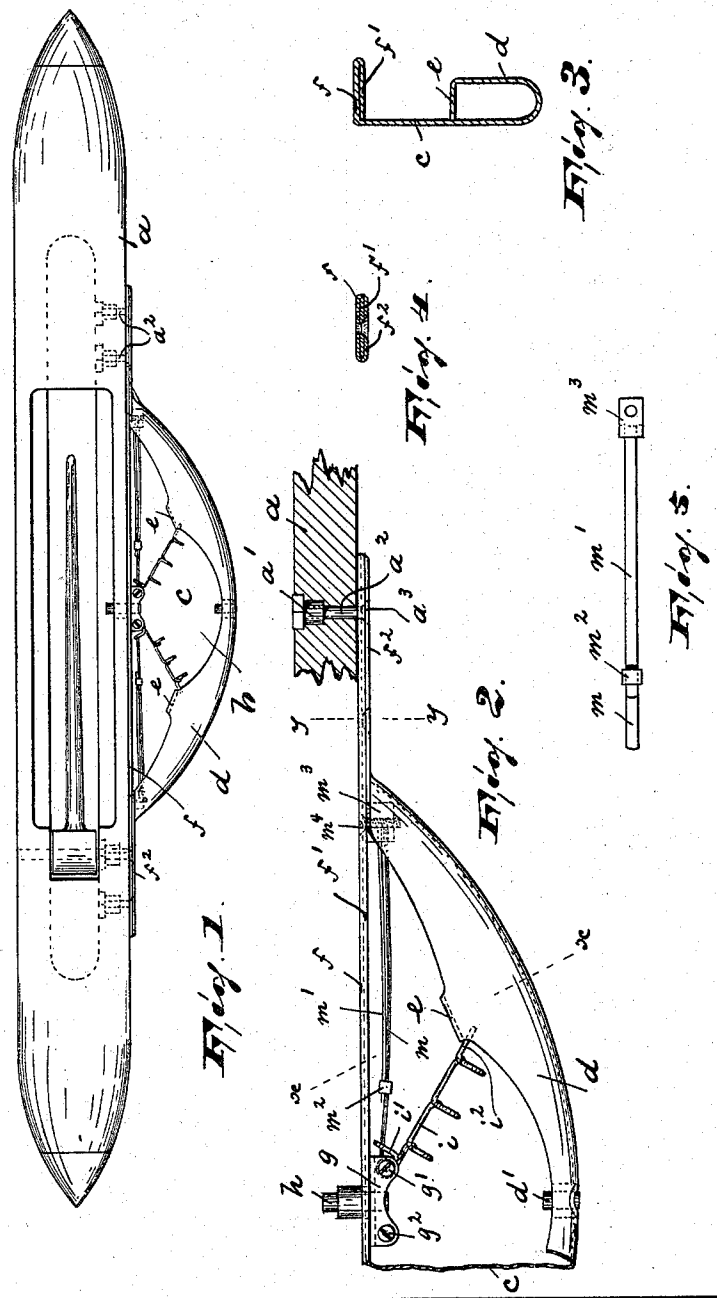

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

WITNESSES:

Wm. D. Bell.

Duncan M. Robertson.

INVENTOR:

Alphonse Marius Chouvelon

BY Partner & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALPHONSE MARIUS CHOUVELON, OF PATERSON, NEW JERSEY, ASSIGNOR TO HOLDEN RIGBY, OF SAME PLACE.

SHUTTLE BOW OR CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 573,861, dated December 29, 1896.

Application filed October 5, 1896. Serial No. 607,873. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSE MARIUS CHOUVELON, a citizen of France, residing in Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Shuttle Bows or Conductors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my present invention is to provide a shuttle bow or conductor formed of one sheet of metal, strong and durable, which will not be liable to get out of order, and which therefore will not be injurious to the fabric.

The invention consists in the improved shuttle bow or conductor, its connection with the shuttle proper, and in the combination and arrangement of parts substantially as will be hereinafter more fully described and finally embodied in the clauses of the claim.

In the accompanying drawings, Figure 1 represents a top plan view of a shuttle provided with my improved bow or conductor; Fig. 2, an enlarged detail view of a portion of the latter and also illustrating the means for securing the latter to the shuttle-body; Fig. 3, a sectional view on the line $x\ x$ of Fig. 2; Fig. 4, a sectional view on the line $y\ y$ of Fig. 2; and Fig. 5, a detail view of the tension-spring used in connection with my improved shuttle-bow.

In said drawings, a represents a shuttle of ordinary construction, and b the bow or conductor, secured to said shuttle by means of the screws or bolts a^2, having their heads a^3 embedded in the projecting flanges of the bow and engaging the internally-threaded nuts a', having their heads embedded into the body of the shuttle, as clearly shown in Fig. 2; but it will be manifest that other means for securing the bow to the shuttle may be used without departing from the spirit of my invention.

The bow or conductor b is formed of one continuous plate or sheet of metal, which is struck up and bent to form the straight bottom c, the hood-shaped front d, and the back f, which latter projects upwardly from the bottom and on the same side as the hood d. To strengthen said back f and to thus obtain the desired thickness, the portion forming said back is doubled over or folded upon itself, as clearly shown at f' in Fig. 3, and to avoid sharp edges at the portions of the back projecting beyond each side of the bottom the metal is bent or returned upon itself, as clearly shown at f^2 in Fig. 4 of the drawings, that is to say, said projecting portions consist of three thicknesses of metal.

The hood d, in the central portion of which the eye d' is arranged, is provided at each side of its center with a projection or stop e, bent substantially at right angles to the bottom of the bow and soldered or secured thereto in any desired manner.

Within the bow and secured to the central portion of its back is arranged a bracket g, supporting the pins g' g^2, which latter are adapted to serve as fulcrums for the tension-wires i, each provided at its free end with a projection i^2, adapted to bear against the stop e, formed by the bow, as hereinbefore described. At the inner end of said tension-wire and projecting therefrom at substantially right angles is arranged a loop i', adapted to be engaged by the free end of the flat spring m, the other end of which is fixed to a block m^3, which latter is removably secured by means of the screw m^4, to and within the bow, as clearly shown in Fig. 2. The flat spring m and its tension are controlled and regulated by a flat spring-plate m' of less elasticity and resting on the said flat spring m and secured with one end to the block m^3. A sleeve m^2 fits snugly over the flat springs m and m', and can be moved thereon for the purpose of regulating the tension of said springs, as will be manifest.

The bracket g, as well as the back f, is penetrated by the eye h, arranged directly opposite the eye d', as in ordinary construction.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is--

1. A shuttle bow or conductor formed of one sheet of metal, bent into a flat bottom, a hood and a back, and having the hood provided at each side of its center with a pro-

jection bent at right angles to the bottom, and secured thereto, substantially as and for the purposes described.

2. A shuttle bow or conductor formed of one sheet of metal, bent into a flat bottom, a hood and back, said back being strengthened by having the metal doubled upon itself, and provided on each end with projecting flanges, consisting of three layers of metal, integral with the back, substantially as and for the purposes described.

3. The combination with the back of a shuttle-bow, the bottom projecting at right angles therefrom and integral therewith, a hood formed at the forward portion of said bottom and also integral with the latter and provided at each side of its center with a bent inward projection, a bracket arranged on the back and in the center thereof, a tension-wire fulcrumed on said bracket and adapted to bear against the inward projection of the hood, a block removably secured to the back, and a flat spring secured to said block and adapted to control with its free end the tension-wire, all said parts, substantially as and for the purposes described.

4. The combination with the back of a shuttle-bow, the bottom projecting at right angles therefrom and integral therewith, a hood formed at the forward portion of said bottom and also integral with the latter and provided at each side of its center with a bent inward projection, a bracket arranged on the back and in the center thereof, a tension-wire fulcrumed on said bracket and adapted to bear against the inward projection of the hood, a block removably secured to the back, a flat spring secured to said block and adapted to control with its free end the tension-wire, a spring-plate of less elasticity arranged on said flat spring, and secured with one end to the block, and a sleeve slidingly arranged on said flat spring and spring-plate, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of September, 1896.

ALPHONSE MARIUS CHOUVELON.

Witnesses:
ALFRED GARTNER,
HOLDEN RIGBY.