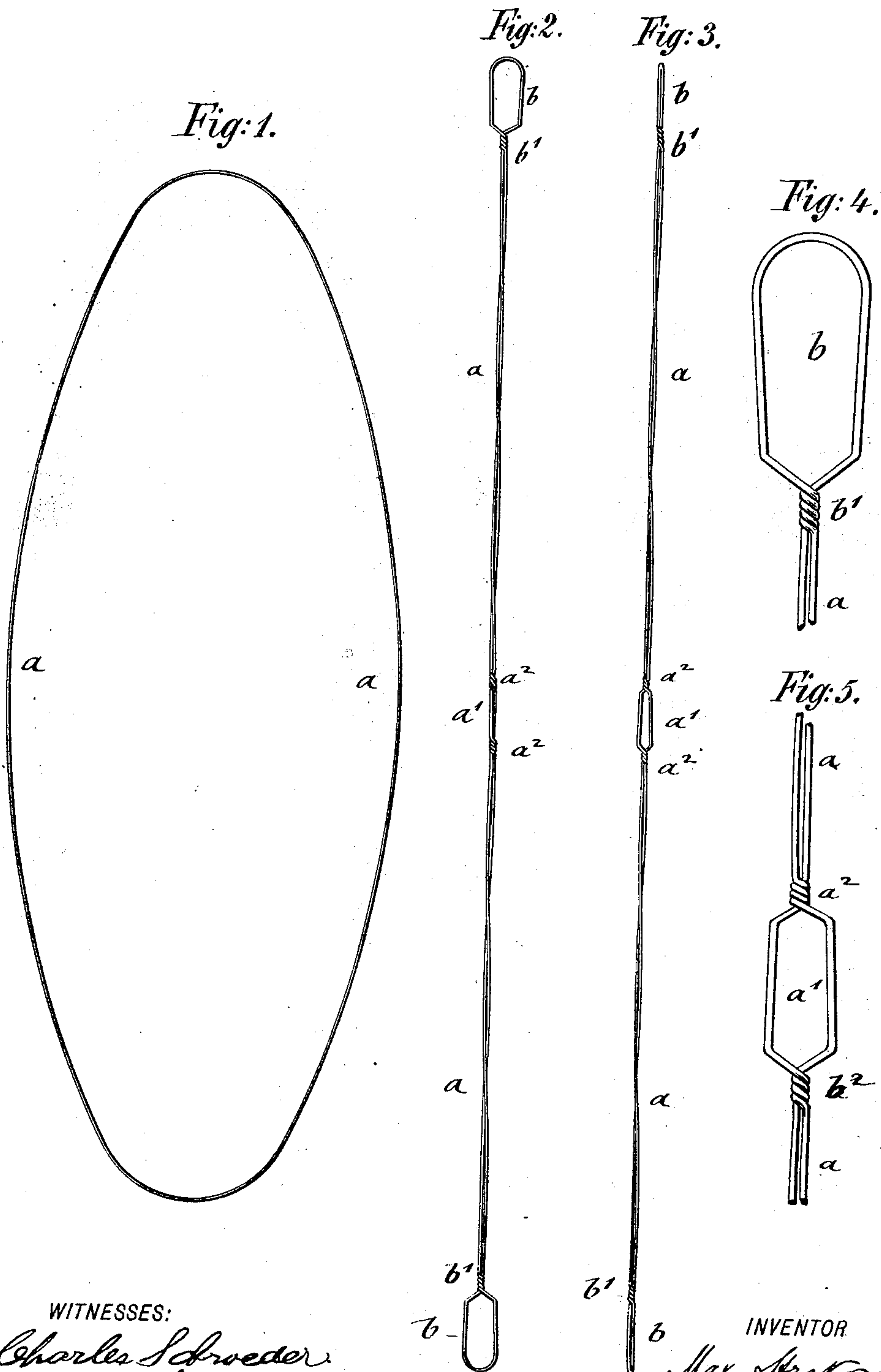


(No Model.)

M. STRAKOSCH.  
WIRE HEDDLE FOR LOOMS.

No. 513,063.

Patented Jan. 16, 1894.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

MAX STRAKOSCH, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS TO  
FRANK WOLF AND LEOPOLD SALZER, OF SAME PLACE.

## WIRE HEDDLE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 513,063, dated January 16, 1894.

Application filed April 15, 1893. Serial No. 470,479. (No model.)

*To all whom it may concern:*

Be it known that I, MAX STRAKOSCH, a subject of the Emperor of Austria-Hungary, residing in the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Wire Heddles for Looms, of which the following is a specification.

Wire-heddles were heretofore made in which the ends of the wire-blank from which the heddle is formed were located in the neck-twist of one of the end eyes of the heddle, whereby the projecting twists at the outer portions of the end-eyes are dispensed with. Practical tests made with these heddles however have shown that the three-ply neck-twist adjacent to one of the end-eyes is objectionable on account of its increased thickness and its rigidity, the greater thickness of the neck-twists taking up more space especially when a large number of heddles are used in a frame, and further, that the neck-twists exert a friction on the warp-threads when they move up toward the thicker neck-twists.

The object of my invention is to overcome the foregoing objections and to furnish a wire-heddle in which the neck-twists are made of even thickness with the body of the heddle, and for this purpose my invention consists of a wire-heddle for looms formed of a closed and endless wire-blank which is twisted in the usual manner, so that a two-ply twist is formed at the inner end of each end-eye, as will be fully described hereinafter, and finally pointed out in the claim.

In the accompanying drawings, Figure 1 represents a side-elevation of the closed and endless wire-blank, for which my improved wire-heddle is made. Fig. 2 represents a side-elevation of my improved wire-heddle. Fig. 3 is a front-elevation of the same, and Figs. 4 and 5 are side-views respectively of the end-eye and the warp-eye of the heddle drawn on a larger scale.

Similar letters of reference indicate corresponding parts.

In making my improved wire-heddle for looms, a closed and endless wire-blank *a* is

employed which is formed by uniting the ends of a wire-blank of the required length either by welding, soldering or otherwise. The ends of the wire-blank may be welded together by the heat of gas-flame, or by the heat of the electric current, or otherwise, so that the point of joining of the end of the blank can only be discovered by the practiced eye. The wire-blank *a* is then twisted in the usual manner on a machine for twisting wire-heddles, so as to form the warp-eye *a'* in the usual manner at the center of the heddle by twists *a<sup>2</sup>* one at each side of the warp-eye *a'*, and the smooth and continuous end-eyes *b b* by two-ply neck-twists *b'* which correspond to the twists *a<sup>2</sup>* at both sides of the warp-eye *a'*, as shown clearly in Figs. 2 and 4. By the use of a closed and endless wire-blank, a wire-heddle is obtained, which has a number of advantages when placed on the heddle-frame in the loom, inasmuch as it does not increase the thickness of the heddle at the neck-twists of the end-eyes, in which twists heretofore the ends of the wire-blank were stored away, nor are any parts injurious to the warp-threads by friction therewith.

My improved heddle has also an improved appearance as both ends are perfectly symmetrical in shape, owing to the arrangement of the two-ply neck-twists at both end-eyes, and the even thickness of the neck-twists with the body of the heddles.

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

A wire-heddle, made from a closed and endless wire-blank and provided with a central heddle-eye and continuous end-eyes, and two ply neck-twists at both ends of the heddle-eye and at the inner end of the end-eyes, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

MAX STRAKOSCH.

Witnesses:

PAUL GOEPEL,

H. WILLARD GRIFFITHS.