

(No Model.)

W. B. ARNOLD.

WAXED END.

No. 342,725.

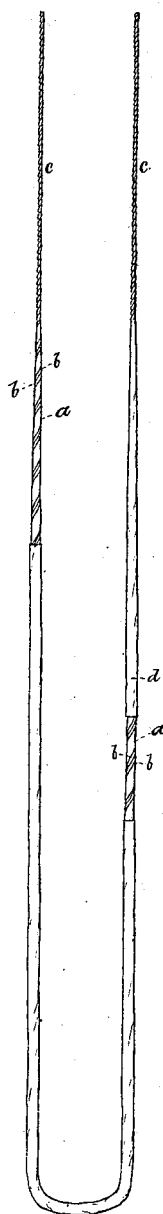
Patented May 25, 1886.

Fig. 3.

Fig. 1.



Fig. 2.



s  
i  
s  
i

Witnesses.

S. N. Piper

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# UNITED STATES PATENT OFFICE.

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## WAXED END.

SPECIFICATION forming part of Letters Patent No. 342,725, dated May 25, 1886.

Application filed March 17, 1886. Serial No. 195,501. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM BENNETT ARNOLD, of North Abington, in the county of Plymouth, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in the Manufacture of Waxed Ends for the use of Cordwainers or Harness-makers or others; and I do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side view of a waxed end of my invention, the nature of which is defined in the claims hereinafter presented, such waxed end having but one metallic inductor. Fig. 2 is a side view of a waxed end having two such inductors—one at each terminus of it. Fig. 3 is a diagram representing how the articles are to be made in a continuous strip or piece.

Prior to my invention waxed ends have been composed of a waxed string of flax or fibrous vegetable or animal material and a hog's bristle secured to one or each end of such string.

In making my improved waxed end, I compose it of such a string and two or other suitable number of fine metallic wires arranged lengthwise of each other and intertwisted or braided together, and having at one or each terminus an inductor composed of two of the wires twisted together, the inductor serving the purpose of the hog's bristle, or being like it, for introduction of the waxed end into an awl-hole made in a piece of work. All of the article except its inductor or inductors is to be covered or saturated with shoemaker's wax.

In the drawings, the string of flax, hemp, or silk is shown at *a*, the wires at *b b*, and the inductors, composed of the wires twisted together when beyond the string, at *c*, and the wax covering at *d*.

The wires, by extending throughout and being twisted into the string, not only greatly strengthen the article and the sewing that may be formed by it, but answer for the manufacture of the inductor or inductors, and by being twisted into the string they cause the inductor or inductors to be better secured thereto than a bristle can well be.

The waxing of the article is to be done after

the string and wires may have been twisted together and the wires twisted to form the inductors.

For the convenience of shoemakers and others, the articles may be made of a series of strings arranged in line with each other and at distances apart equal to double the length of each inductor and be twisted with fine wires, extending lengthwise of them and twisted together where between the strips, the portions to constitute the inductors being afterward cut across their middles as the articles may be needed for use.

Fig. 3 shows the said arrangement of the strings and wires, the strings being shown at *s s*, &c., and the wires twisted between them to form the inductors at *i i*, &c.

I do not claim a waxed end or sewing-thread composed of a wire or wires and one or more strands of flax or a vegetable or animal material braided or twisted together and covered with shoemaker's wax without having one or more inductors, as herein set forth.

I claim—

1. The above-described improved article of manufacture, composed of a string of vegetable or animal material and fine wires twisted together and having the wires extending beyond one or each end of the string and there twisted together to form at each end an inductor, as set forth.

2. The above-described improved article of manufacture or improved waxed end, consisting of a string of vegetable or animal material and fine wires twisted together and having the wires extending beyond one or each end of the string and there twisted together to form there an inductor, as explained, and such string covered or saturated with shoemaker's wax, or its equivalent, all being substantially and for use as set forth.

3. The above-described improved article of manufacture, consisting of a string and a fine wire or wires twisted together and covered or saturated with shoemaker's wax, all being substantially as set forth, and provided with an inductor extending from one or each end of it, as specified.

WILLIAM BENNETT ARNOLD.

Witnesses:

M. D. HOWLAND,  
S. A. DODGE.