(No Model.)

B. H. STILES.

DRIVE BELT.

No. 251,483. Patented Dec. 27, 1881.

Fig. 1.

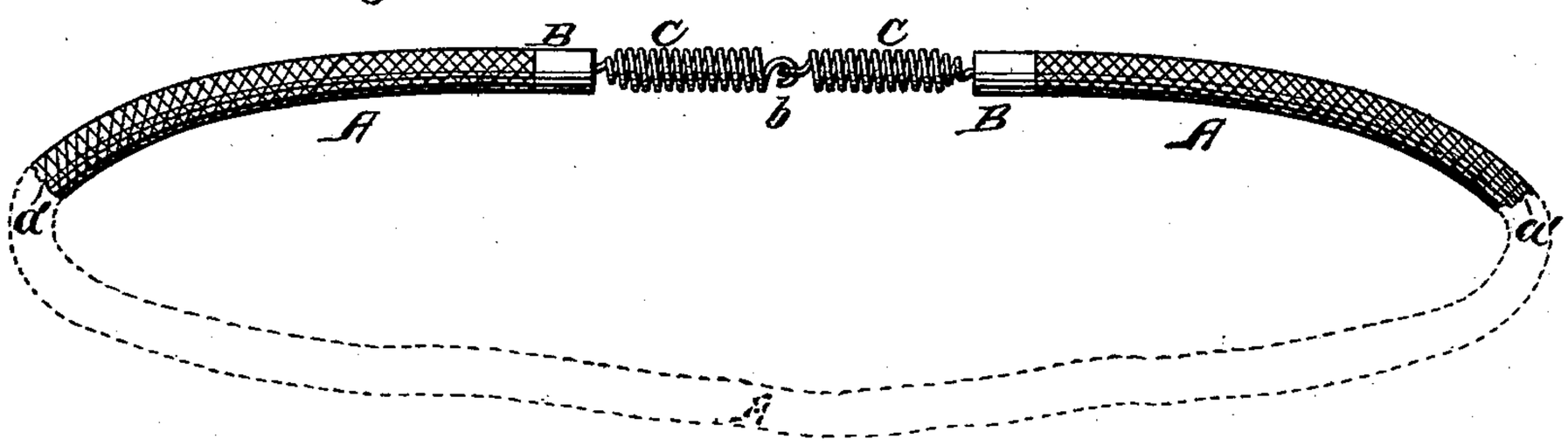


Fig. 2.

Fig. 3.

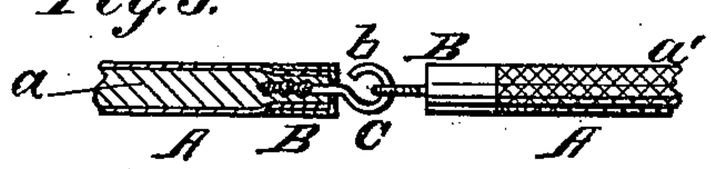
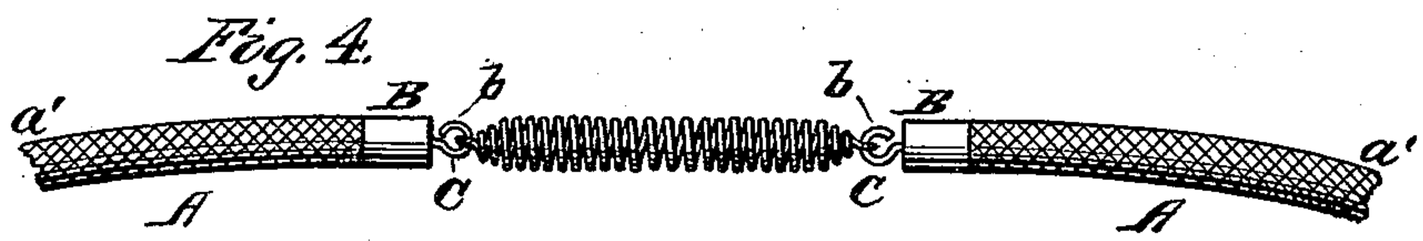


Fig. 4.



Witnesses.
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A. W. Nichols

Inventor.
Burage H. Stiles
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Attorney.

UNITED STATES PATENT OFFICE.

BURAGE H. STILES, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO WALTER SCATES, OF SAME PLACE.

DRIVE-BELT.

SPECIFICATION forming part of Letters Patent No. 251,483, dated December 27, 1881.

Application filed February 7, 1881. (No model.)

To all whom it may concern:

Be it known that I, BURAGE H. STILES, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Drive-Belts, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a side view of a drive-belt embodying my invention. Fig. 2 is a longitudinal central section thereof. Fig. 3 is a like representation, showing a modification in the form of the fastening; and Fig. 4 is a side view, showing still another modification in the form of the fastening.

In the drawings, A represents a drive-belt made in accordance with my invention.

a represents the body or core of the part A or belt proper. This core or body *a* consists, by preference, of a cord made of hemp or flax; but it may also be made of cotton, canvas, or other suitable material. *a'* is a sheath or covering, made either of linen, cotton, or other suitable material, and applied to the part *a* by being braided tightly upon it, as indicated in the drawings. By this means a slender but very strong, durable, and non-elastic cord or belt is produced.

B B are metallic tips or ferrules applied tightly or firmly upon the ends of the belt A.

C C are fastenings for coupling the ends of the belt to each other. The inner ends of these fastenings are either bent in the form of a cork-screw, as shown in Fig. 2, or threaded somewhat like a common wood-screw, as shown in Fig. 3. In the latter case the edge of the screw-thread should be blunt or rounded enough not to cut the core *a*, for these fastenings are to be applied to the ends of the belt by being screwed thereinto, as represented. The outer ends of the fastenings C C are bent into the form of eyes *b b*, one of which should be left open enough to be hooked into the other. To produce a considerable degree of elasticity, the fastenings C C are either made in the form of spirals between their ends, as shown in Figs. 1 and 2, or a separate close spiral spring may be coupled to the outer ends of the parts C C, as shown in Fig. 4.

The belt A may be protected against the influence of moisture by means of any well-known preparation or material suitable for that purpose.

It will be perceived that a belt constructed in the manner shown and described will be non-elastic, and that when once fitted to its work it will not stretch and slip upon the wheels it is intended to rotate. It is also very strong, tough, and durable.

It will also be perceived that the fastenings or couplings are very simple in construction, and that by being screwed into the ends of the belt, which are bound in the manner described, the fastenings or couplings are very strongly secured to the belt, but may be applied and removed with facility by being turned in the proper direction for that purpose; also, by interposing spiral springs in the fastenings in the manner shown and described, elasticity is secured, and this elasticity being due to the employment of metallic close spiral springs, any unnecessary slack will be taken up, or, rather, such slack will be prevented. This elasticity also obviates the necessity of gaging the length of the belt with as much nicety as might otherwise be required.

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

1. The combination of the non-elastic drive-belt A, consisting of the core or body *a*, inclosed in a braided sheath or covering, *a'*, the metallic tips or ferrules applied on the ends thereof, and metallic elastic couplings made spiral or screw-shaped on their inner ends, and thereby adapted to be screwed into the ends of the body *a*, and thereby made flexible and elastic, substantially as and for the purposes specified.

2. As an improved article of manufacture, the drive-belt A, consisting of the core or body *a*, and of the braided sheath or covering *a'*, in combination with elastic metallic couplings at its ends.

BURAGE H. STILES.

Witnesses:
F. F. WARNER,
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