No. 856,565. PATENTED JUNE 11, 1907.

U. S. BALCH.

STEEL METALLIC BELTING.

APPLICATION FILED MAR. 19, 1906.

Fig. 1.

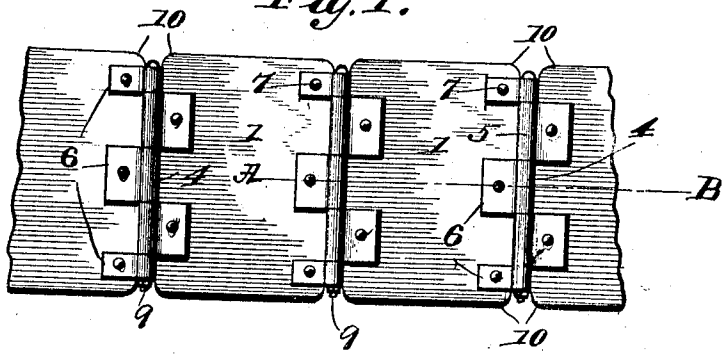


Fig. 2.

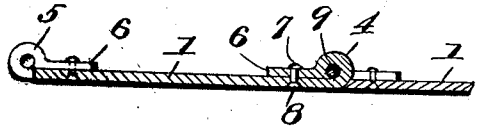


Fig. 3.

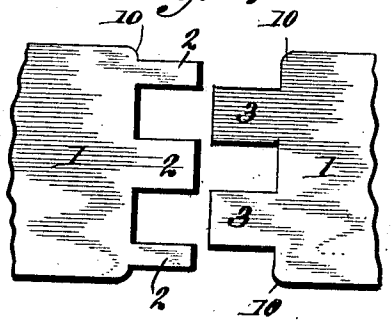
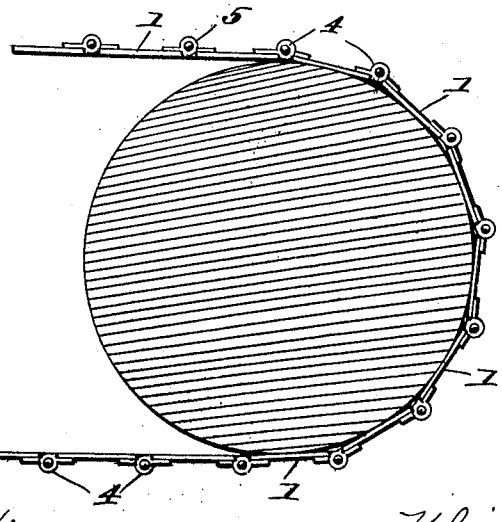


Fig. 4.



WITNESSES:

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STEEL METALLIC BELTING.

No. 856,565. Specification of Letters Patent. Patented June 11, 1907

Application filed March 19, 1906. Serial No. 306,918.

To all whom it may concern:

Be it known that I, ULIN S. BALCH, a citizen of the United States, residing at Carterville, in the county of Jasper and State of Missouri, have invented new and useful Improvements in Steel Metallic Belting, of which the following is a specification.

This invention relates to belts for driving machinery, and especially to that class of belts adapted to be used in connection with plane-surfaced pulleys.

The object of the invention is to provide a metallic belt of this character having sufficient flexibility to adapt it for the purpose, and to produce a belt which is much stronger and more durable than belts of this character heretofore constructed of leather and textile fabrics, and further to provide a belt in which there will be little or no stretch.

The invention consists of a metallic belt, comprising a series of plane, flat sections hinged together, the said sections being constructed and arranged, substantially as I will proceed now more particularly to set forth and finally claim.

In the accompanying drawings, illustrating the invention, in the several figures of which like parts are similarly designated,

Figure 1 is a plan view of a portion of the belt. Fig. 2 is a longitudinal section, taken in the plane of line A—B, Fig. 1. Fig. 3 is a plan view of two of the blanks of which the sections are constructed, showing the relative arrangement of two adjacent sections, and Fig. 4 is a side elevation, showing a portion of the belt applied to a pulley.

In carrying out my invention, the belt is composed of a series of metallic sections, each comprising a substantially rectangular body portion and hinge or pintle eyes or loops arranged upon the opposite edges of the body portion, the eyes or loops of the adjoined edges of the adjacent sections being complemental or intermeshing, to receive a suitable bolt or pin, whereby the sections are connected together to form a continuous flexible belt.

In the preferred construction, and as illustrated in the drawings, the belt may be constructed of a series of metallic sections, each of which is formed of a similarly constructed blank, as shown in Fig. 3, cut or stamped from sheet metal, preferably thin sheet steel, and comprising a substantially rectangular body portion 1 having a series of ears or lugs 2 upon one edge and a complemental series of ears or lugs 3 upon the opposite edge, the ears or lugs 2 and 3 being made of sufficient width and length to be turned back upon themselves to form suitable eyes or loops 4 and 5, respectively, upon opposite sides of the body portion, 1, see Figs. 1, 2 and 4, and said ears or lugs 2 and 3 terminate in straight portions 6 adapted to fit snugly against the body portion 1, and are held in place by rivets 7, the heads of which are countersunk, as shown at 8, Fig. 2, in the active faces of the belt sections.

The loops or eyes 4 and 5 upon opposite sides of the belt sections are so arranged with relation to each other, that the loops or eyes of adjacent sections intermesh with or are complemental to one another, and are adapted to receive a suitable bolt or pin 9 to lock the sections together, and thus form a hinge joint between the sections.

The corners of the rectangular body portions 1 are preferably rounded, as shown at 10, Figs. 1 and 3, in order to avoid sharp corners, which would be liable to catch into the clothes of the machinist, or other obstruction, that may accidentally come in contact with the edge of the belt when in motion.

As thus constructed, that side of the belt, opposite to the turned-in loops or eyes, forms a continuous, flat, smooth and uninterrupted surface, and constitutes the active face of the belt, the sections of the belt being constructed of suitable narrowness longitudinally of the belt to produce the desired flexibility to cause the belt to effectively engage the pulley or pulleys to which it is applied.

By constructing the sections of sheet steel, a very light, durable and practically non-stretchable driving belt is provided.

The construction herein shown is the preferred form of the invention, but the device may be altered in various details of construction, and still be within the scope of the invention.

What I claim is:—

A driving belt for plane face pulleys, constructed of a series of flat metallic links hav-

ing complemental hinge members connecting pintles for said hinged members the corners of said links being rounded and the said hinge members and their connecting pintles being arranged upon the outer face of the belt, the pintles being shorter than the width of the belt and the inner faces of the links forming a continuous uninterrupted active surface for engagement with the plane face of the pulley.

In testimony whereof he affixes his signature in presence of two witnesses.

ULIN S. BALCH.

Witnesses:
WILLIAM C. BURCH,
J. ARTHUR DOUGHURTY.