## J C Desumeur, C Dudin, E. Dudin and I. Delacourt's Improved fastening for Driving Belts or Bands.

Patented Dec. 5, 1871. No. 121,452. Witnesses. Isten Sames Regulates. Haller, Philips, Reeve, Manly

## United States Patent Office.

JEAN CHRYSOSTOME DESUMEUR, CELESTIN DUDIN, EDOUARD DUDIN, AND LOUIS DELACOURT, OF GUISE, FRANCE.

## IMPROVEMENT IN FASTENING DRIVING-BELTS.

Specification forming part of Letters Patent No. 121,452, dated December 5, 1871.

To all whom it may concern:

Be it known that we, Jean Chrysostome Desumeur, Celestin Dudin, Edouard Dudin, and Louis Delacourt, all of Guise, department of the Seine, Empire of France, have invented an Improved Fastening for Driving-Belts or Bands, of which the following is a specification:

Our invention relates to a fastening for endless belts or bands, made by combining a buckle and wedge in such a manner that, in case of a rupture or a stretching of the belt, the position of the fastening may be shifted and the belt lengthened or shortened with great facility; the object being to save, if not entirely, at all events in a great measure, the loss of time and labor now incurred in mending broken driving-belts, and more particularly in the case of the stretching of the belt, from the necessity of undoing the old and making an entirely new fastening.

Figure 1 is a plan of a belt-buckle made according to our invention. Fig. 2 is a plan of its wedge. Fig. 3 is a side view of Fig. 1. Fig. 4 is an edge view of Fig. 2. Fig. 5 is a section embodying the entire arrangement. Fig. 6 is a section at A B, Fig. 1; and Fig. 7 is a section at E F, Fig. 2.

Similar letters of reference denote similar parts

in each of the figures respectively.

This fastening, which we term a belt-buckle with shifting wedges, is of very simple construction, and may be made of tinned iron or of any suitable metal or material. It consists of a plane part, E, riveted at the points e to one of the ends C of the belt. On this part E and of one piece with it rises the buckle, properly so called, D. (See Fig. 3 of the drawing.) We would here observe that this piece D, having to receive the wedge which is to fix the loose end of the belt, is so made that the three faces of its upper part present a development gradually diminishing down to its base. Thus its top, as well as the

sides a b, Fig. 3, each presents a greater breadth than the corresponding part of its base. To make a fastening, pass the free end j of the belt into the buckle D by the end cd up to the points where it is to be held, and introduce by the end a b, and between D and j the lower part I of the wedge; drive it tight in this position by striking on its head H, and the fastening is made. The shape of the piece H I is calculated to give in solid the proportions presented by the hollow of the buckle. It is less wide and less thick at its base than at its upper part; further, the one is rounded, whereas, the other is cut at right angles. This piece acts as a wedge, and penetrating between the free end j of the belt and the buckle, in proportion to the tension of the belt, the greater the tension the firmer the fastening. To facilitate the removal of the wedge we have furnished it with holes f, into which the end of a lever may be inserted to pry it out. By increasing the number of these holes wedges of great size may be obtained of relatively light weight.

This fastening is very strong; it does not rub upon the pulleys; cannot possibly injure the belt, or ever catch; and it will be evident that it permits the lengthening or shortening of a belt with

great ease and rapidity.

What we claim as our invention, is—

A fastening for driving belts, composed of the rivet-plate E with wedge-box D, and the perforated wedge H I, the several parts being constructed, arranged, and operating substantially as set forth and described.

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Witnesses:

Collas, Clisse, Liniere, Débruant.

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