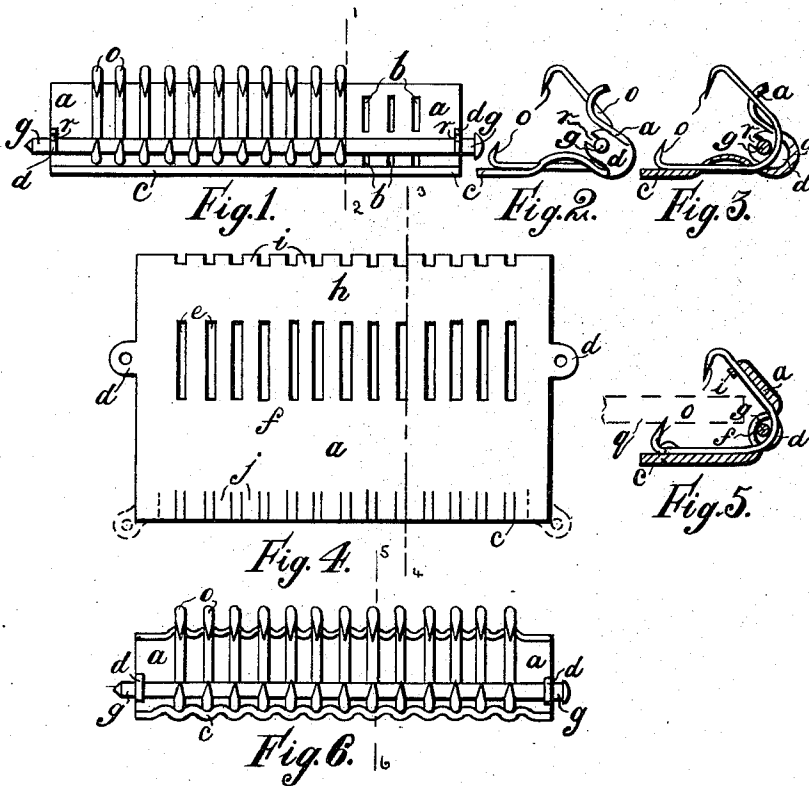


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DRIVING BELT FASTENING DEVICE.
APPLICATION FILED AUG. 20, 1909.

966,697.

Patented Aug. 9, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK MITCHELL AND FRANCIS GUNN, OF MANCHESTER, ENGLAND.

DRIVING-BELT-FASTENING DEVICE.

966,697.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed August 20, 1909. Serial No. 513,776.

To all whom it may concern:

Be it known that we, FREDERICK MITCHELL and FRANCIS GUNN, subjects of the King of Great Britain and Ireland, and residents of Manchester, in the county of Lancaster, England, agents and factors, have invented certain new and useful Improvements in and Connected with Driving-Belt-Fastening Devices, of which the following is a specification.

Our invention has reference to fastening devices for making the joints of leather and other driving belts of that class consisting of open staples with their free ends pointed and bent inwardly substantially at right angles, such pointed ends embracing the ends of the belt into which they are driven by a mallet or forced thereinto by a press after which the looped ends of the staples are brought together from opposite directions and a rod of wire, catgut, fiber or other suitable material passed therethrough to complete the joint. In a prior patent granted to ourselves No. 806556 of 1905 we described a tool or appliance for supporting the pointed staples and enabling them to be driven into the belt end by a mallet or a press, such appliance consisting of a substantial bed or base of cast iron or the like adapted to be secured to a bench, such base having at its upper portion a stepped recess at one or both ends and a projecting portion forming part of the stepped portion provided with a number of vertical grooves to receive the looped ends of the staples and hold them in position while being driven into the belt, a pin being passed through the base inside the loops of the staples and another one passed through the base at the back of the loops to hold them in position. The pin first referred to can be withdrawn after the pointed ends of the staples have been partially driven into the belt so as to allow the staples to be completely driven home on another portion of the base. Such an appliance as we have referred to is somewhat costly besides which considerable time is occupied by the person making the belt joint in first arranging the staples in position in the base and in order to avoid these defects our invention consists essentially in providing an inexpensive holding device in which the pointed staples can be held in proper position for subsequent use, such holding device and staples being sold together.

With this object in view our holding device consists essentially of a plate of thin metal, cardboard, vulcanite, wood or other suitable material or combination of materials provided with slots, projections, grooves or the like into or between which the staples can be placed in proper position and a pin for holding the staples, the holding device being of sufficient length to support only the number of staples required for the width of one end of a belt or of its two ends or on the other hand sufficiently long to hold a number of staples for making several joints.

Our invention will be fully described with reference to the accompanying drawings in which,

Figure 1 is a front elevation of an appliance made in metal in accordance with our invention, Fig. 2 end elevation of same, Fig. 3 section on line 1, 2 of Fig. 1, Fig. 4 plan, developed, of a metal sheet of modified construction, Fig. 5 section of same on line 3, 4, of Fig. 4.

In carrying out our invention we employ an inexpensive and thin sheet of metal or other material *a* suitable for the purpose which, in Figs. 1 to 3, is bent to the form indicated in Figs. 2 and 3, slots *b* being formed in the upper and lower bent portions to receive the looped ends of the staples which bear against the rear ends of the slots while the latter hold the staples in position laterally. The bottom portion of the metal plate is made sufficiently long at *c* to support the lower legs of the staples.

d are ears or lugs at the ends of the metal plate provided with holes to receive a pin made of metal or other suitable material and of any suitable cross-section which is passed through the holes in the lugs in front of the staples and holds the latter against the rear end of the slots *b* as previously mentioned.

In Figs. 4 and 5 the metal plate *a* is provided with slots *e* at its rear portion and the bars *f* between the slots are bent inwardly as indicated at Fig 5, the end lugs *d* through which the pin *g* is passed being bent outwardly. Instead of slots *b* we provide indentations *h* leaving projections *i* which may be bent inward as indicated in Fig. 5 so that the upper legs of the staples may rest between them. The opposite edge of the plate *a* may be slit as indicated leaving portions *j* which can be turned over as indicated in

Fig. 5 to support the lower legs of the staples between them. The pin *g* in this case is passed through the staples in front of their looped ends and at the rear of the bars *f*.

We would have it understood that though inexpensive sheet metal has been particularly referred to that any other material or combination of materials suitable for the purpose may be employed and particularly a material of a cheap character.

The holder *a* may be of any suitable length so as to hold the number of staples required and for one belt or one belt joint or for a number of belt joints. The slots, projections or their equivalent may be arranged at any suitable distance apart in accordance with the pitch of staples required and such slots or projections may be of any suitable width to accommodate different gages of wire from which the staples are made.

In use the belt end *q* is pushed between the open ends of the staples the latter closed together so that their pointed ends enter the belt, by a hammer or a suitable press after which the pin *g* can be withdrawn and the belt and staples secured to it removed. If the whole of the staples are not used at one operation the pin is pushed back into position, but when the whole are used the holder *a* may be replenished with staples or thrown away. The lugs or ears *d* may be split at *r* and closed slightly so that the pin *g* may have a sufficiently tight sliding fit to prevent it coming out too easily.

It will be understood that the apparatus or holder enables the staples to be sold along with it in a condition ready for use as afore-

said and as no arranging of the staples is required by the operator making the belt joint his time is saved. We would also have it understood that the holder *a* may be made of cast metal or cement or the like molded to suitable form.

What we claim as our invention and desire to secure by Letters Patent is:—

1. A device for holding belt-connecting hooks consisting of a holder of sheet material of substantially V-shaped section, portions bent inward and provided with slots to receive the belt hooks, ears at the end of the holder provided with holes and a retaining pin passed through the holes and in front of the belt hooks substantially as described.

2. A device for holding belt-connecting hooks consisting of a holder of sheet material of substantially V-shaped section, a portion bent inwardly at the junction of the V, slots formed in the bent portion, open-ended slots formed in the edges of the holder and the material adjacent bent inwardly to serve as holders for the belt hooks in conjunction with the rearward slots, ears at the end of the holder provided with holes and a retaining pin passed through the holes and in front of the belt hooks substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two witnesses.

FREDERICK MITCHELL.
FRANCIS GUNN.

Witnesses:

AMY E. EVINS,
J. GREAVES.