April 1, 1924. 1,488,866

S. W. CLARK

BELT CLAMPING MEANS

Filed Oct. 17, 1921

FIG. 1

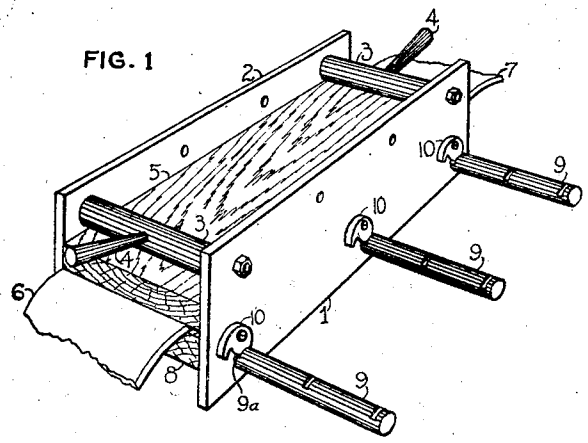


FIG. 2

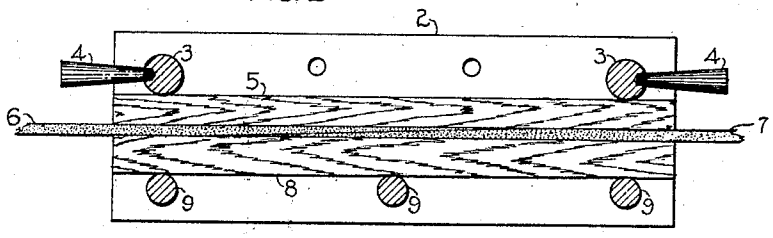


FIG. 3

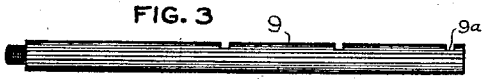


FIG. 4a

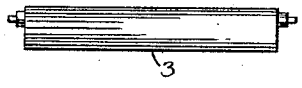


FIG. 4



FIG. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL W. CLARK, OF EVANSVILLE, INDIANA.

BELT-CLAMPING MEANS.

Application filed October 17, 1921. Serial No. 508,306.

To all whom it may concern:

Be it known that I, SAMUEL W. CLARK, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented new and useful Improvements in Belt-Clamping Means, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to belt clamping means, and it has especial relation to a device wherein means are provided for tightly holding the two ends of a spliced belt together during the time the cement, which has been applied to the joined surfaces, is setting.

More particularly, my invention relates to a belt clamping device which is universally adjustable to provide for the splicing of belts of any thickness and of any width. Moreover, my improved belt clamping methods have an adjustable feature, whereby the belt is expeditiously spliced irrespective of whether the cemented surface is long or short.

A further object of my invention is to embody all of the above adjustable belt clamping means in a device without unduly increasing the size of the latter and without encumbering same with a plurality of parts in order to obtain the adjustability. As will hereinafter appear, my device is so constructed that it may be quickly disassembled and transported from place to place, and as I have just mentioned, even when said device is in use, the various parts thereof are so associated that it forms a very compact clamping member.

For a better understanding of my invention, reference may be had to the accompanying drawing, in which:

Figure 1 is a perspective view of a device embodying my invention;

Fig. 2 is an elevational sectional view taken through the middle of the device shown in Fig. 1; and

Figs. 3, 4, 4ª and 5 are fragmentary views illustrating certain essential elements which are embodied in the device shown in Fig. 1.

My improved belt clamping device comprises side plates 1 and 2, while extending between these plates are a plurality of tightening members 3, each provided with an operating handle 4. These members 3 operate when the handles are turned against an upper clamping member 5, in this instance, illustrated as a board of required thickness. Moreover, the eccentricity of these clamps is so arranged that the upper member is not caused to slip along the belt upon the tightening of said clamps.

The two ends of the belt, which are to be spliced, are represented at 6 and 7, it being noted, that the ends of these portions are cut down to wedge shape whereby the two opposed faces thereof may have cement applied thereto and whereby the said ends may be firmly secured together by said cement when pressure is applied thereto and the cement allowed to dry under pressure. The plate ends are clamped between the heretofore mentioned member 5 and a lower belt supporting member 8, the latter in turn resting on a plurality of supporting rods 9 which extend between the side plates. One end of the rods 9 may be permanently secured to one of the plates, in this instance plate 2, while the other plate is firmly fixed to said rods by the engagement of an eccentric clamp 10 with a transverse notch 9ª in said rod 9.

As I have heretofore indicated, by belt clamping device is universally adjustable. The box-like clamping structure is built up by determining the width of the belt to be treated and thereafter setting the adjustable side plate at the proper distance from the other plate through the use of the notches and the eccentric locks 10, it being observed that the latter locks may be turned out of engagement with the notches by a simple manual operation. Again, while I have described the clamping members 3 as positioned between the side plates 1 and 2, I contemplate utilizing longer members when the adjustable side plate is moved to accommodate a wider belt. In Fig. 4ª is shown one of the longer members 3 which may be utilized when a wider belt than that shown in Fig. 1 is to be cemented. Finally, the thickness of the belt may be taken care of by the thickness of the clamping members 5 and 8.

From the above description, it will be apparent that I have provided a novel and efficient belt clamp for holding cemented spliced belt ends under pressure while the cement is setting. Moreover, the device which has just been described is very com-

pact and may be easily disassembled when not in use. Although it has these features of compactness and adjustability, the parts which are utilized therein are relatively few, and this last feature also contributes to the practicability of the device.

While I have illustrated but one embodiment of my invention, it is obvious that many modifications therein may occur to those skilled in the art and I desire, therefore, that the same be limited only by the showing of the prior art and by the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the U. S. is:

1. In a device of the character described, means for clamping the ends of spliced belt portions together during the cementing thereof comprising a lower support for said ends, a parallel upper clamping member cooperating with said lower belt support, means for urging said upper member toward the lower member, side members for confining the sides of the belt portions and for carrying said supporting and clamping means, and means for permitting the transverse adjustment of the side members whereby belts of varying widths may be treated in said device and be closely confined by the said side members.

2. In a device of the character described, means for clamping the ends of spliced belt portions together during the cementing thereof comprising a lower support for said ends, a parallel upper clamping member cooperating with said lower belt support, means comprising eccentrically mounted rollers bearing against said upper member for urging the same toward the lower member, and side members adapted to be laterally moved to and from each other to carry said rollers and supporting device irrespective of the width of the belt which is being treated.

3. In a device of the character described, a pair of side plates, supporting means extending between said plates, a lower belt clamping member supported on said means, an upper belt clamping member extending parallel to said lower member, means for urging said members together comprising clamping means extending between said plates, and means associated with said plates to permit the widening of said belt clamping device.

4. In a device of the character described, a pair of side plates, supporting means extending between said plates and attached to one of them, cooperative means on the other of said plates whereby said plates may be spaced apart as dictated by the width of the belt to be spliced, a lower belt clamping member supported on said means, an upper belt clamping member extending parallel to said lower member, and means for urging said members together comprising clamping means extending between said plates.

5. In a device of the character described, a pair of side plates, supporting rods extending between said plates and having spaced transverse grooves therein, means comprising eccentric clamps mounted on a side plate to cooperate with said grooves whereby a clamping device of predetermined width may be built up, a lower belt clamping member supported on said rods, an upper belt clamping member cooperating with the latter, and eccentric clamps supported between said side plates for urging said clamping members together.

6. In a device of the character described, a pair of side plates, supporting rods extending between said plates and having spaced transverse grooves therein, means comprising eccentric clamps mounted on a side plate to cooperate with said grooves whereby a clamping device of predetermined width may be built up, a lower belt clamping member supported on said rods, an upper belt clamping member cooperating with the latter, and eccentric clamps supported between said side plates for urging said clamping members together, said plates being provided with means whereby said clamps may be mounted at varying points therealong to provide for clamping of splices of different lengths.

7. In a device of the character described, a pair of side plates, supporting rods extending between said plates and having spaced transverse grooves therein, means comprising eccentric clamps mounted on a side plate to cooperate with said grooves whereby a clamping device of predetermined width may be built up, a lower belt clamping member supported on said rods, an upper belt clamping member cooperating with the latter, and eccentric clamps supported between said side plates for urging said clamping members together, said plates being provided with means whereby said clamps may be mounted at varying points therealong, and said eccentric clamps being readily removable to be associated with any set of said last-named means as desired to provide for the clamping of varying lengths of belt splices.

8. In a device of the character described, a pair of side plates, supporting rods extending between said plates and having spaced transverse grooves therein, means comprising eccentric clamps mounted on a side plate to cooperate with said grooves whereby a clamping device of predetermined width may be built up, a lower belt clamping member supported on said rods, an upper belt clamping member cooperating with the latter, and eccentric clamps supported between said side plates for urging said clamping members together, said plates be-

ing provided with means whereby said clamps may be mounted at varying points therealong, said eccentric clamps being readily removable to be positioned in any set of said last-named means as desired to provide for the clamping of varying lengths of belt splices, and said clamp being so operable upon tightening that said upper member does not tend to slip when pressure is applied thereto.

In witness whereof, I have hereunto subscribed my name.

SAMUEL W. CLARK.

Witnesses:

HENRY W. BEHRMANN,

J. V. JENKINS.