

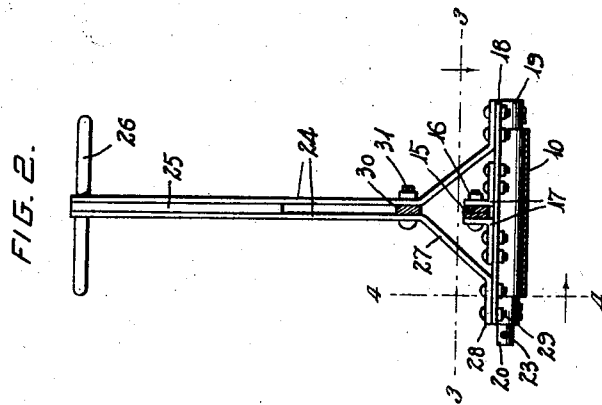
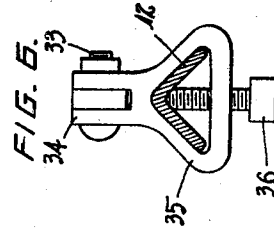
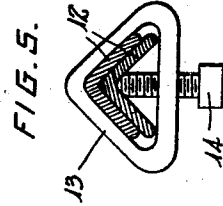
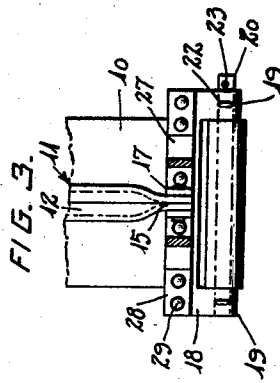
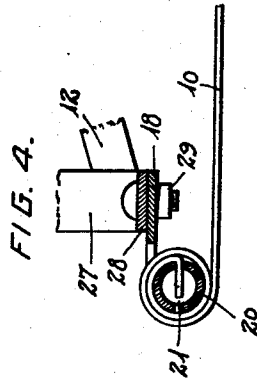
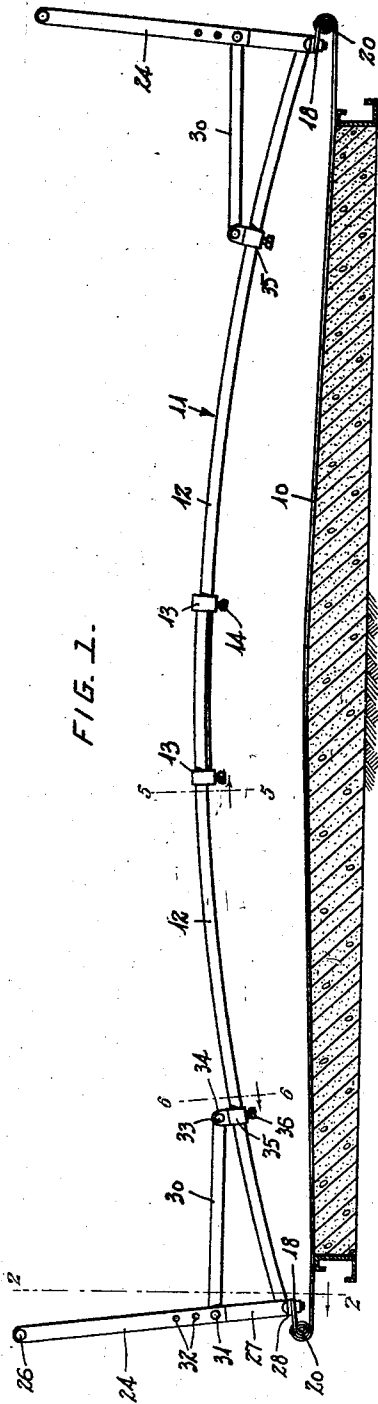
Aug. 4, 1931.

J. W. HELTZEL

1,817,687

BELTING DEVICE

Filed Aug. 7, 1929



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UNITED STATES PATENT OFFICE

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BELTING DEVICE

Application filed August 7, 1929. Serial No. 384,078.

The present invention relates to belting devices such as are used for "belting" or smoothing off the surface of a concrete road under construction, it being a prevailing practice to use a belt which is reciprocated transversely across the road before the concrete has set.

The present invention has for an object the provision of a novel and improved frame for holding a finishing belt, in order that the belt may be conveniently manipulated.

Another object is the provision of an improved belting device in the form of a bow, for holding the belt taut, and having provisions for adjustment.

A further object is the provision of such a device having novel handles for conveniently manipulating the device.

A still further object is the provision of novel means for regulating the bowing of the bow between the ends of which the belt is stretched.

Still another object is the provision of a belting device of the character indicated which is of simple and inexpensive construction, being conveniently constructed from metal stock, and being convenient and efficient in use.

With the foregoing and other objects in view, which will be apparent as the description proceeds, the invention resides in the construction and arrangement of parts, as hereinafter described and claimed, it being understood that changes can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the improved belting device in use, showing the concrete road and side form rails in cross section.

Fig. 2 is an enlarged section on the line 2—2 of Fig. 1.

Figs. 3 and 4 are sectional details on the respective lines 3—3 and 4—4 of Fig. 2.

Figs. 5 and 6 are enlarged cross-sections on the respective lines 5—5 and 6—6 of Fig. 1.

The belt 10 is of leather, fabric or other suitable flexible material, and is stretched be-

tween the ends of a resilient bow 11 forming part of the belt frame. The bow is composed of the angle iron sections 12 which are overlapped at their adjacent terminals, in order that the frame may be shortened and lengthened. The angle iron sections are arranged with their external angles disposed upwardly. Clamps 13 embrace the overlapping terminals of the sections 12 and have clamping screws 14 to seat within the internal angles of the sections, as seen in Fig. 5, for clamping the sections together in the desired adjustment thereof. When the screws 14 are loosened, the sections 12 may be slid relatively to one another to increase or decrease the length of the frame.

The opposite ends of the sections 12 are pressed together, as at 15, and are pivoted by bolts 16 between angle pieces 17 secured by bolts or rivets, or otherwise, on sheet metal yokes 18 that are disposed transversely across the ends of the bow 11. The yokes 18 have bearings 19 at their ends in which tubular spools 20 are mounted for rotation, and said spools have slots 21 between the bearings 19 to receive the terminals of the belt 10, in order that the terminals of the belt may be wound on said spools within the yokes 18. Cotter pins 22 are inserted through apertures in the bearings 19 and spools 20 for holding said spools against rotation when the belt is wound thereon, and the spools may have suitable apertures to receive the pins 22 or other suitable securing elements. The spools 20 project from one bearing 19 of each yoke and have apertures 23 for the reception of a rod or other implement that is used for turning the spools. It is apparent that when the belt is wound on the spools this will, in tightening the belt, thereby move the ends of the bow 11 toward one another so as to bow said bow into an arc of less radius.

The frame includes a handle at each end, and each handle is composed of a pair of bars 24 secured together with a spacer 25 between the upper terminals thereof, and a handle rod 26 extends through the upper end portions of said bars to be conveniently grasped by the hands. The bars 24 have the diverging portions 27 above the yokes 18, with feet 28 se-

cured by bolts 29 or otherwise on the yokes 18. The diverging portions 27 are disposed astride the ends of the bow 11 and pieces 17, as seen in Fig. 2.

5 Braces 30 connect the handles and bow. One end of each brace is pivoted by means of a bolt or pin 31 between the bars 24 of the corresponding handle, said bars having vertically spaced apertures 32 to receive the bolt or
10 pin 31. The other end of the brace is pivoted by means of a bolt or pin 33 within the slotted lug 34 upstanding from a clamp 35 embracing the bow 11 and having a set screw 36 to bind within the internal angle of the bow,
15 as seen in Fig. 6.

When the set screws 36 are loosened the clamps 35 may be adjusted longitudinally on the bow to adjust the angles of the handles. The braces 30 also transmit the strains from
20 the handles to the bow 11 when the handles are manipulated for reciprocating the device over the concrete before it has set.

The frame may be constructed inexpensively from metal, and is light in weight.
25 The frame also enables the belt to be conveniently reciprocated over the concrete and side rail forms, in the position as seen in Fig. 1. The bow 11 may be lengthened or shortened conveniently, and the handles may also be
30 adjusted to different angles with reference to the bow and belt. The handles enable the operator or operators to stand erect when belting the road, without having to stoop over or kneel down. This makes the present
35 device more convenient to manipulate and also saves considerable time.

Having thus described the invention, what is claimed as new is:—

40 1. A belting device comprising a bow, belt spools carried thereby at its opposite ends, and a belt connected to the spools.

2. A belting device comprising a frame having adjustably connected sections, and a belt connected to the end portions of the
45 frame.

3. A belting device comprising a bow having adjustably connected sections, and a belt connected to the end portions of the bow.

4. A belting device comprising a bow having adjustably connected sections, belt spools carried by the bow at the opposite ends thereof and a belt connected to the spools.
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5. A belting device comprising an angle iron bow with its exterior angle disposed upwardly, and a belt connected to the end portions of the bow.
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6. A belting device comprising a bow having angle iron sections overlapping one another, clamping means embracing the overlapping portions of said sections, and a belt connected to the opposite ends of said sections.
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7. A belting device comprising a bow, transverse yokes connected to the opposite ends thereof and having spaced bearings, belt

spools mounted in said bearings and having belt engaging means between said bearings, and a belt connected to the spools.

8. A belting device comprising a bow, a belt connected to the opposite end portions thereof, upwardly extending handles connected to the end portions of the bow, and braces connecting said handles and bow.
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9. A belting device comprising a bow, a belt connected to the opposite end portions thereof, upwardly extending handles pivotally connected with the end portions of the bow, and braces adjustably connecting said handles and bow.
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10. A belting device comprising a bow, a belt connected to the opposite end portions thereof, upwardly extending handles pivotally connected with the end portions of the bow, clamps adjustable on the bow, and braces connecting said clamps and handles.
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11. A belting device comprising a bow, yokes pivotally connected with the ends of the bow, a belt connected to said yokes, upwardly extending handles secured on said yokes, and bracing means connecting said handles and bow.
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12. A belting device comprising a bow, yokes pivotally connected with the ends of the bow, spools mounted in said yokes, a belt connected to said spools to be wound thereon, upwardly extending handles secured on said yokes, clamps adjustable on the bow, and braces connecting said handles and clamps.
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In testimony whereof I hereunto affix my signature.
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JOSEPH WILLIAM HELTZEL.

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