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FACING MEANS FOR WEAR SURFACES.

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1,245,324. Patented Nov. 6, 1917.

Fig. 1.

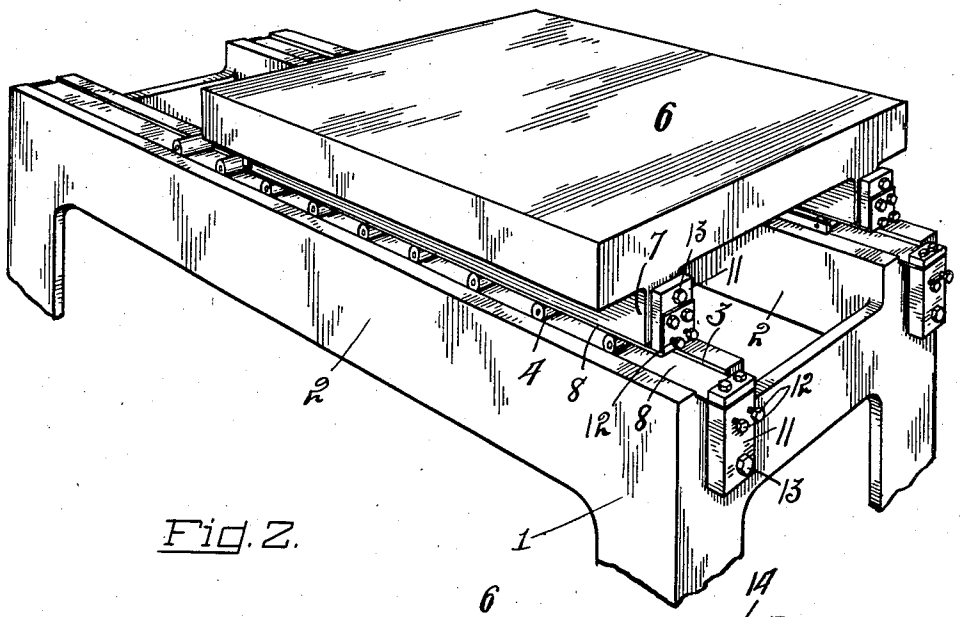


Fig. 2.

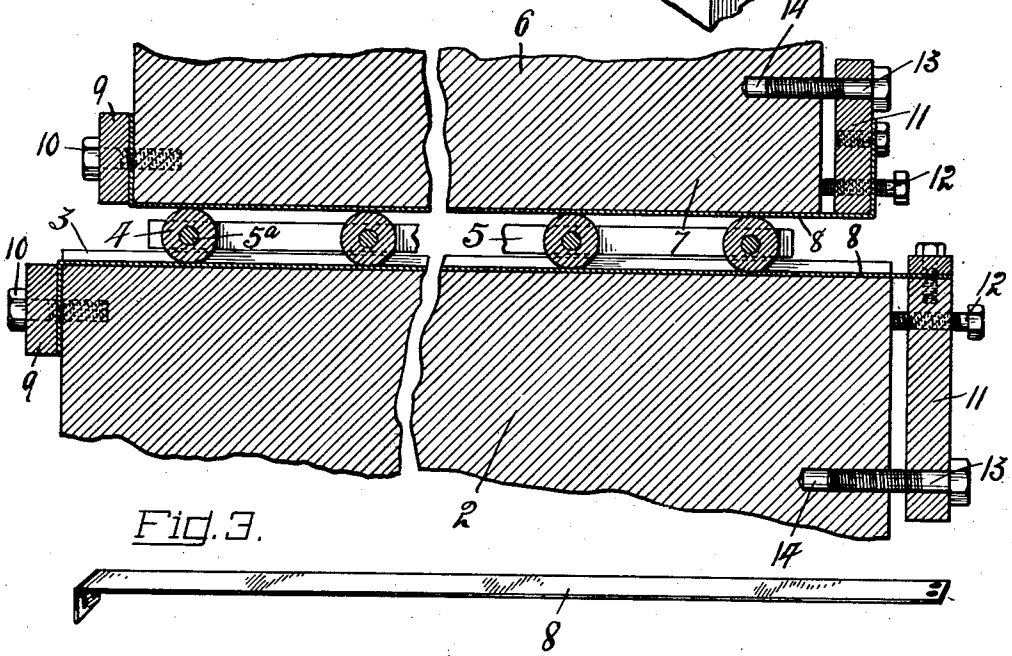


Fig. 3.

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FACING MEANS FOR WEAR-SURFACES.

1,245,324. Specification of Letters Patent. Patented Nov. 6, 1917.

Application filed March 16, 1917. Serial No. 155,250.

To all whom it may concern:

Be it known that I, MICHAEL A. DROITCOUR, a citizen of the United States, and a resident of Delphos, in the county of Van Wert and State of Ohio, have invented a certain new and useful Facing Means for Wear-Surfaces; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to a hardened facing for bearing surfaces, and particularly to means of this character adapted for use in connection with the bearing surfaces of printing press beds and the supporting tracks therefor.

It has been customary in practice to provide the bearing surfaces of printing press beds and the supporting tracks therefor with hardened steel wear plates which are bolted or riveted at spaced intervals to the respective parts and may then have direct sliding contact one with the other or be spaced by an interposed series of rolls to reduce friction. It is found in practice that the repeated reciprocation of the bearing parts, one on the other, and particularly if rolls are disposed therebetween, causes a warping or bowing of the wear or surface plates between the points of bolting, riveting or otherwise securing of the same to the respective carrying parts, thus preventing a smooth even running of the bed and rendering it necessary to frequently replace the wear or surface plates with new plates.

The object of my invention is the provision of means for overcoming the above difficulties and objections and insuring a substantially permanent smooth running of the reciprocatory bed or member and reducing to a minimum the expense of upkeep of the wear surfaces thereof.

The invention is fully described in the following specification, and while, in its broader aspect, it is capable of embodiment in numerous forms, a preferred embodiment thereof is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a frame having a bed or plate mounted for reciprocatory movements thereon, both the frame and bed being equipped with one form of the invention. Fig. 2 is an enlarged fragmntary sectional view of Fig. 1 taken longitudinally through one set of bearing parts thereof, and Fig. 3 is a perspective view of the facing strip used in connection with the invention.

Referring to the drawings, 1 designates a frame having the horizontally extending beams 2, the tops of which, in the present instance, are provided with longitudinally extending surface grooves 3 forming tracks or runways for a plurality of slide rolls 4. The rolls for each runway are tied together by a bar 5 having studs 5^a projecting laterally therefrom and carrying the rolls.

The reciprocally movable bed 6 is provided on its under side with runners 7 for resting on the respective sides of the slide rolls 4, or for resting on the slide surfaces of the tracks or runways 3 if slide rolls are not provided therebetween.

In carrying out my invention each wear or slide surface of the bed 6 and of its supporting frame is faced with a comparatively thin strip 8 of highly tempered steel or other suitable material, preferably of a flexible nature, and a longitudinal tension of considerable force is applied to the strip at its ends to hold it to the part which it is intended to face and to prevent warping or bowing of the surface strip intermediate its ends. The strip 8, in the present instance, is fixed or anchored at one end to an end of the part with which associated, being bent around such part end and securely clamped thereto by a block 9 and one or more screws 10, or in any other suitable manner. The other end of the facing strip 8 is extended, in the present instance, beyond the adjacent end of the part with which associated and is fixed to one end of a tension block or member 11, which acts in the manner of a lever to exert a considerable tension on the strip. The facing strip is attached to the tension block in any suitable manner, two different methods being illustrated in the drawings.

Each tension block 11 has a pair of transversely spaced fulcrum screws 12 threaded therethrough adjacent to the end thereof to which the facing strip is attached and bearing at their inner ends against the adjacent end of the part faced by the strip, thus forming a block with a short arm to which the facing strip is attached and with a long arm to which power is applied. A tension or power screw 13 is inserted loosely through

the long arm of the block or lever member 11 adjacent to its power end and threaded into a registering socket 14 in the part end.

In applying a strip 8 to the part to be faced thereby, one end of the strip is fixedly anchored to the part and the other end thereof is fixed to a tension block or member 11 disposed at the opposite end of said part. The tension screw 13 having been threaded loosely into the socket 14, the fulcrum screws 12 are first adjusted to take up play between the tension block and part and to apply an initial tension to the facing strip. The tension screw 13 is then tightened to apply a final powerful tension to the strip to firmly hold it to the wearing surface of the part with which associated and to straighten out any bows or kinks present therein.

It is found in practice that the difficulties and objections encountered by the use of the track and runner facing means heretofore employed have been entirely overcome by the use of my improved facing means, and that the expense of maintenance and upkeep of hardened track and runner facing means is very materially reduced, and a substantially permanent smooth running of the reciprocatory bed insured.

I wish it understood that my invention is not limited to any specific construction, arrangement or form of the parts, as it is capable of numerous modifications without departing from the spirit of the claims.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a member having an elongated wear surface, of a facing strip applied to said surface and maintained under longitudinal tension.

2. The combination with a member having an elongated wear surface, of a flexible facing strip applied to said surface and maintained under longitudinal tension.

3. The combination with a member having an elongated wear surface, of a facing strip applied to said surface, and separate means engaging said strip at longitudinally spaced points and coöperating to hold the strip in facing relation to said surface and to longitudinally tension the same.

4. The combination with a member having an elongated wear surface, of a facing strip applied to said surface, and separate relatively adjustable means engaging said strip at longitudinally spaced points and cooperating to hold the strip in facing relation to said surface and to longitudinally tension the same.

5. The combination with a member having an elongated wear surface, of a flexible facing strip applied to said surface and anchored at one end, and means at the other end of said strip for longitudinally tensioning the same.

6. The combination with a member having an elongated wear surface, of a flexible facing strip applied to said surface and anchored at one end, and adjustable means at the other end of said strip for longitudinally tensioning the same.

7. The combination with a member having an elongated wear surface, of a thin steel facing strip loosely resting on said surface and maintained under adjustable longitudinal tension.

8. The combination with a member having an elongated wear surface, of a thin steel facing strip mounted loosely on said surface, and separate means engaging said strip at the ends of the wear surface and cooperating to hold the strip to said surface and to longitudinally tension the same.

9. The combination with a member having an elongated wear surface, of a thin steel facing strip for said surface, means forming an anchor for said strip at one end of said surface, and means attached to said strip at the other end of the wear surface and operable to longitudinally tension said strip.

10. The combination with a member having an elongated wear surface, of a facing strip mounted on said surface and anchored at one end thereof, and lever means attached to said strip at the other end of said wear surface and operable to longitudinally tension said strip.

11. The combination with a member having an elongated wear surface, of a flexible facing strip applied to said surface and anchored at one end thereof, a block attached at one end to the free end portion of said strip and extending transversely thereof, fulcrum means carried by said block for bearing against an end of said member, and means connecting said member and block and operable to draw the free end of said block toward the member to tension said strip.

12. The combination with a member having an elongated wear surface, of a facing strip applied to said surface and anchored to said member at one end of said surface, a lever attached at one end to the free end portion of said strip and extending transversely thereof, adjustable fulcrum screws carried by said lever and fulcruming against the adjacent end of said member, and means connecting the free end of said lever and said member and operable to move the lever to apply a tensioning stress on said strip.

In testimony whereof, I have hereunto signed my name to this specification.

MICHAEL A. DROITCOUR.