Dec. 20, 1927.

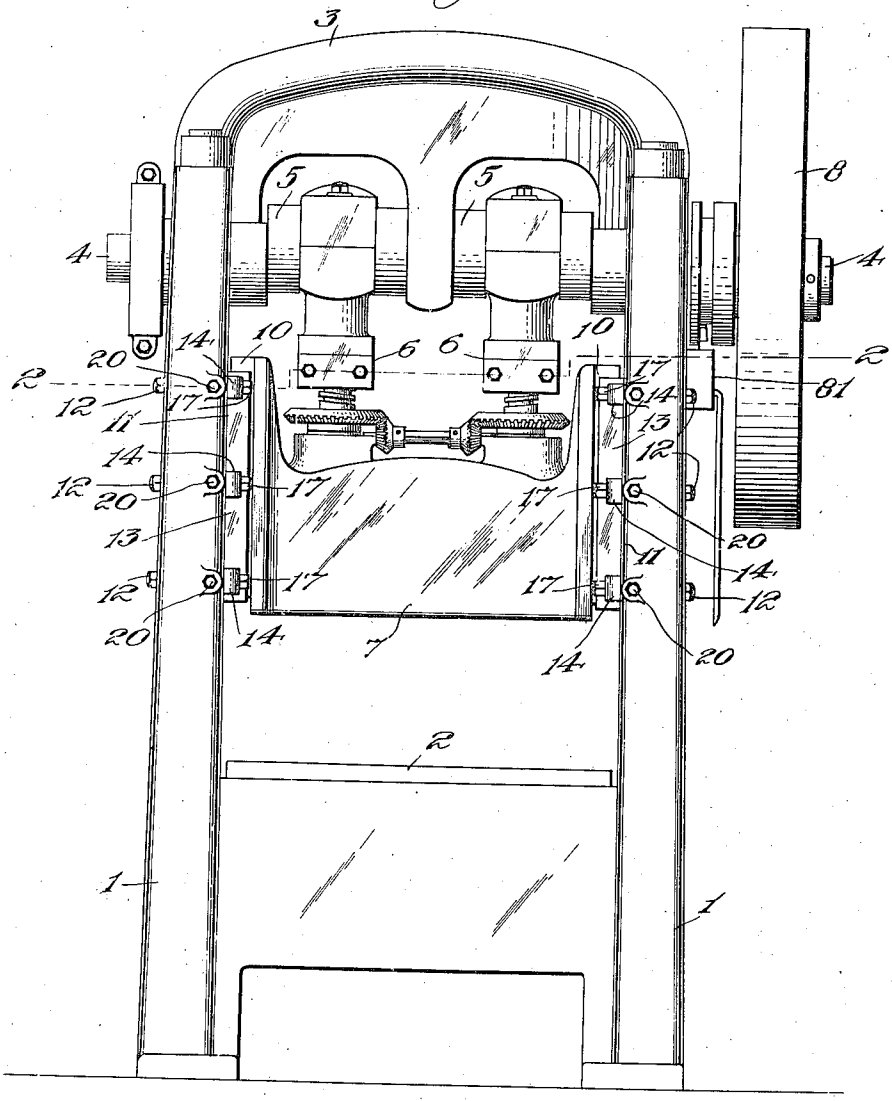
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E. W. ZEH

ADJUSTABLE GUIDEWAY

Original Filed Dec. 4, 1920 2 Sheets-Sheet 1

Fig. 1



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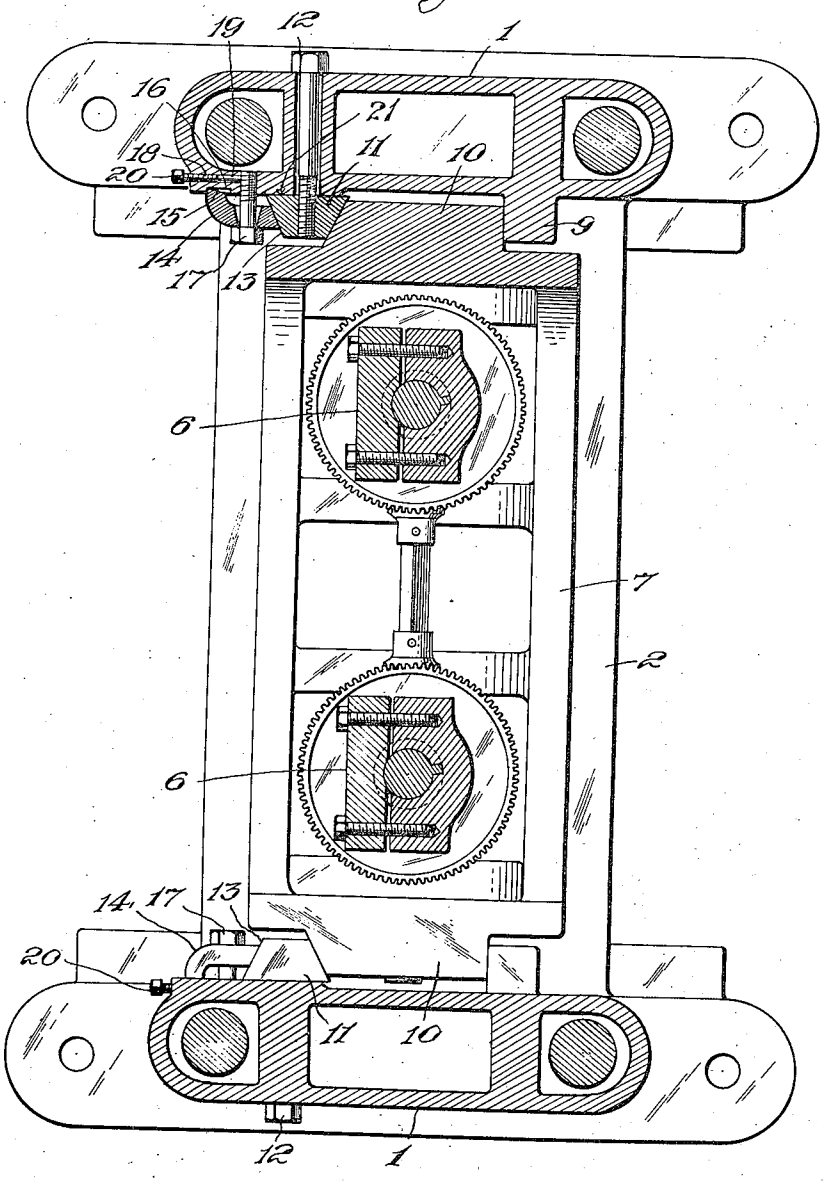
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Fig. 2.



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UNITED STATES PATENT OFFICE.

EDMUND W. ZEH, OF NEWARK, NEW JERSEY.

ADJUSTABLE GUIDEWAY.

Original application filed December 4, 1920, Serial No. 428,405. Divided and this application filed August 26, 1924. Serial No. 734,185.

This application is a division of my prior application Serial No. 428,405, filed December 4, 1920, and allowed June 5, 1924.

The objects of this invention are to provide improved means for easily and effectively taking up wear on the guideways for the sliding head of a power press; to employ for this purpose a gib movable transversely of itself toward and away from the sliding member of the press and having a beveled outer edge, together with means for adjustably exerting pressure on said beveled edge; to exert such pressure by means of members or dogs which at one end engage said beveled edge and at the other end have a fixed seat, together with means for clamping said gib-engaging end toward the housing of the press, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate the same parts throughout the several views,

Figure 1 is a front elevation of a power press embodying my improvements, and

Figure 2 is a horizontal cross-section of the power press on line 2—2 of Fig. 1, looking downward.

In said drawings I have shown my improvements embodied in a power press of common and well-known type, having a frame with side pieces or housings 1, 1, a bed 2 and a top-leaf 3; journaled in said side pieces and top-leaf is a shaft 4 having eccentric portions 5, 5, which are connected by pitmen 6, 6, to a hammer 7, adapted to reciprocate toward and away from the bed 2 between the side pieces 1. 1. The shaft 4 is shown having a driving pulley 8 upon one end of itself, outside the frame of the press, and any usual clutch means 81 is provided to cause the press to operate as desired even though the driving pulley rotates continuously. This press is shown only for purposes of illustration, it being understood that my improvements to be described as applied to it can be applied to presses of various other constructions and I do not wish to be understood as limiting myself in that respect.

The hammer 7 is guided in its up and down movements by guideways on the side-pieces 1, 1, and in carrying out my invention I preferably provide each side-piece with a fixed gib 9 at one side of a projection 10 on the hammer, see Figure 2, and an adjustable gib 11 at the other side of said projection. This adjustable gib I have shown capable of sliding slightly upon the face 21 of the side-piece or housing 1 toward the projection 10 and held to said face 21 by bolts 12 which can be loosened to facilitate such sliding or tightened to resist it. I have shown such bolts as threaded into the gib and extending loosely through the side-piece 1 to permit the movement, but other constructions could be employed. The edge of the adjustable gib 11 away from the projection 10 is beveled or sloping, as at 13, and engaged by the correspondingly beveled ends of dogs 14 which lie substantially parallel to the face 21 of the side-piece or housing and are provided at their ends away from the adjustable gib 11 each with a foot 15 which turns toward the face of the housing and enters a seat 16 therein to prevent movement of the dog away from the gib. A bolt 17 extends through each dog intermediate its ends and into the face 21 of the housing 1, so that upon tightening these bolts the ends of the dogs engaging the adjustable gib will force the same toward the projection 10 on the hammer and so take up looseness from wear or the like.

In order to lock the adjusting bolts 17 against inadvertent movement, a passage 18 is drilled in the housing 1 for each bolt transverse to the same, and a clamping screw 20 mounted in each passage, preferably with a loose pin 19 between its inner end and the bolt. I have shown the bolts 17 as screwing into tapped holes in the housings, and with that construction the pins 19 have their ends away from the clamping screws correspondingly shaped so as to fit against the threaded sides of the bolts without damaging the threads. Thus to effect adjustment of the movable gib 11, the clamping screws 20 are slackened, the bolts 12 loosened and the clamping bolts 17 tightened until the adjustable gib is close against the projection 10 on the hammer; then the bolts 12 and clamping screws 20 are again tightened. Looseness from wear can thus be very easily and effectively taken up, as often as desired, and the press kept in the best and most efficient working condition.

Various modifications and changes may be made in manufacturing my improvements, by those skilled in the art, without depart-

ing from the spirit and scope of the invention, and I do not wish to be understood as restricting myself except as required by the following claims when construed in the light of the prior art.

Having thus described the invention what I claim is:

1. The combination with a sliding member and housing therefor, of a gib on said housing at one side of said sliding member movable toward and away from the same upon the face of the housing and having a beveled surface at its outer edge, and means upon said face of the housing for adjustably exerting pressure toward said face upon said beveled surface.

2. The combination with a sliding member and housing therefor, of a gib on said housing at one side of said sliding member movable toward and away from the same and having its outer edge beveled, a member engaging at one end said beveled edge and at its other end a seat on the housing, and means for clamping said gib engaging end toward the housing.

3. The combination with a sliding member and housing therefor, of a gib on said housing at one side of said sliding member movable toward and away from the same and having its outer edge beveled, an angular dog engaging at one end said beveled edge and at its other end a seat on the housing, and means for clamping said dog toward the housing.

4. The combination with a sliding member and housing therefor, of a gib on said housing movable transversely of itself and having an edge adapted to guide said member and a beveled or inclined outer opposite edge, an angular dog engaging at one end said beveled or inclined edge and at its other end a seat on the housing, means for clamping said dog toward the housing, and means for clamping the gib to the housing.

5. The combination with a sliding member and housing therefor, of a gib on said housing movable transversely of itself and having an edge adapted to guide said member and a beveled or inclined outer opposite edge, an angular dog engaging at one end said beveled edge and at its other end a seat on the housing, and a bolt extending loosely through the dog and into the housing.

6. The combination with a sliding head having a lateral projection, of a housing having gibs providing between themselves a slideway for said projection, one of said gibs being movable transversely of itself toward and away from the projection and having its edge away from said projection beveled or inclined, a dog having one end portion substantially parallel to the said housing and spaced therefrom and engaging the said beveled edge of the movable gib and its other end portion engaging a seat on said housing to resist movement away from said movable gib, and means for clamping said gib-engaging end portion of said dog toward said housing.

7. The combination with a sliding member and housing therefor, of a gib on said housing movable transversely of itself and having an edge adapted to guide said member and a beveled or inclined outer opposite edge, an angular dog engaging at one end said beveled edge, a bolt extending loosely through the dog and threaded into the housing, a sliding pin transverse to the threaded end of the bolt with its end shaped to fit the thread, and a clamping screw for forcing said pin against the bolt.

EDMUND W. ZEH.