V. E. EDWARDS.
PINION HOUSING FOR ROLLING MILLS.
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Fig. 1

Fig. 5.

Fig. 2.

Fig. 4.

Witnesses

Inventor
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THE NERCO PETERS CO., PHOENIX, ARIZONA, WASHINGTON, D.C.
To all whom it may concern:

Be it known that I, VICTOR E. EDWARDS, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Pinion-Housings for Rolling-Mills, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 represents a front elevation of a pinion-housing embodying my invention. Fig. 2 is an end view of the pinion-housing. Fig. 3 is a vertical sectional view through the center of the pinion-shaft bearings. Fig. 4 is an end view of the housing with the pinions removed therefrom.

Similar figures of reference refer to similar parts in the different views.

This application is a division of my pending application, Serial No. 700,186, for an improvement in rolling-mills, filed December 23, 1898, and it relates to certain improvements in the pinion-housings of rolling-mills by which the bearings of the pinion-shafts may be readily removed from the housing; and it consists in the construction and arrangement of parts, as hereinafter described, and set forth in the annexed claims.

Referring to the accompanying drawings, 1 denotes the pinion-housing embodying my invention and containing pinions by which the shafts of the housings 2 and 3 are connected together, the pinion-housing being placed intermediate between the pairs of rolls, journaled in the housings 2 and 3. The pinion-housing 1 contains the pinion-shafts 4, 5, and 6, placed one above the other, with the upper and central shafts in alignment with the shafts of the rolls in the housing 2 and with the central and lower pinion-shafts in alignment with the shafts of the rolls in the housing 3. The upper pinion-shaft 4 is geared to the central pinion-shaft 5 by gears 77 on the shaft 4, engaging gears 88 on the central shaft 5, and the lower pinion-shaft 6 is connected with the central pinion-shaft 5 by a gear 9 on the lower shaft 6, engaging the gear 10 on the central shaft 5.

The pinion-housing 1 consists of a pair of upright posts 11, preferably integral with the base 12 and inclosing a vertical slot 13 sufficiently wide to receive the journals of the pinion-shafts. The vertical posts 11 and are provided on opposite sides of the vertical slot 13 with recesses 14, adapted to receive annular journal-bearings 15. The journal-bearings 15 are provided on their outer ends with ears 16, which pass through and are secured by bolts 17.

The pinion-housing is stiffened by bolts 18, which connect the upper ends of the vertical posts 11 and are arranged to draw them toward each other; so as to pinch the annular bearings 15 in the recesses 14 and thereby securely hold them in place. By clamping the annular bearings 15 in the curved recesses 14 I also determine the spacing or distance between the centers of the bearings.

By loosening the tightening-bolts 13 and withdrawing the bolts 17 the annular boxes may be withdrawn from the ends of the pinion-shafts, and by removing the bolts 18 the pinion-shafts 6 may be lifted out of the vertical slots 13.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the pinion-housing consisting of two vertical posts forming the opposite sides of the housing, each pair of posts inclosing a vertical slot to receive the journals of a series of pinion-shafts, annular journal-bearings held by said posts, and a series of pinion-shafts journaled in said bearings, said posts having circular recesses inclosing a portion of the peripheries of said annular bearings, substantially as described.

2. A pinion-housing comprising posts having vertical slots, to receive the journals of a series of pinion-shafts and having recesses in the sides of said slots to receive annular journal-bearings, a series of annular bearings, provided with ears, bolts, by which said ears are connected to the housing and a series of pinion-shafts journaled in
said annular bearings, substantially as described.

3. The combination in a pinion-housing of two vertical posts having a common integral base, and inclosing a vertical slot provided with recesses in the sides of said slot to receive journal-bearings, and tightening-bolts, connecting the tops of said posts, whereby they are clamped against the journal-bearings held in said recesses, substantially as described.

Dated this 2d day of February, 1903.

VICTOR E. EDWARDS.

Witnesses:

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