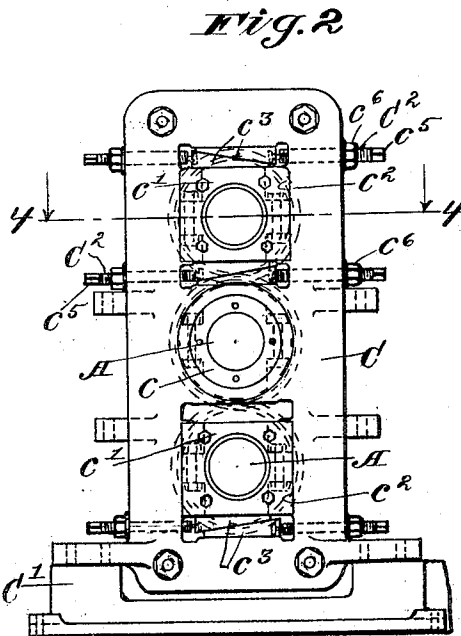
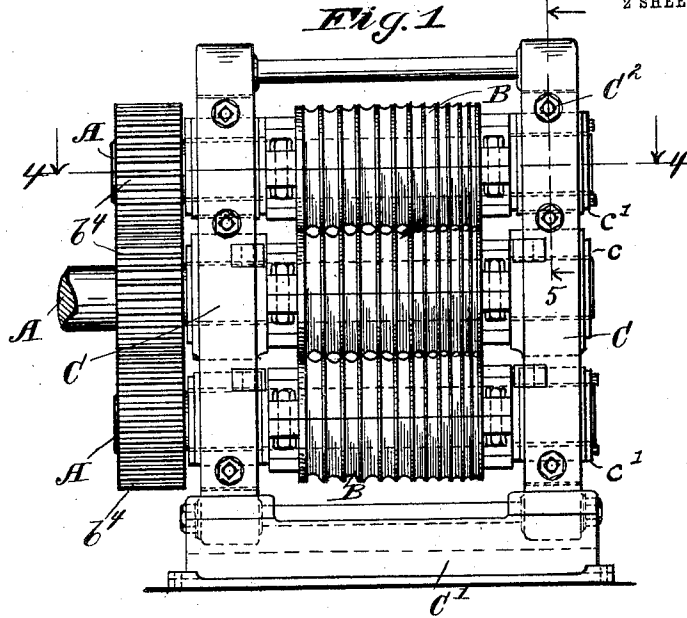


J. R. BLAKESLEE.
ADJUSTABLE BEARING.
APPLICATION FILED JUNE 28, 1909.

1,047,490.

Patented Dec. 17, 1912.

2 SHEETS—SHEET 1.



Witnesses:
J. C. Tunnis
Geo. F. Osburn

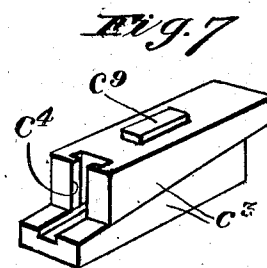
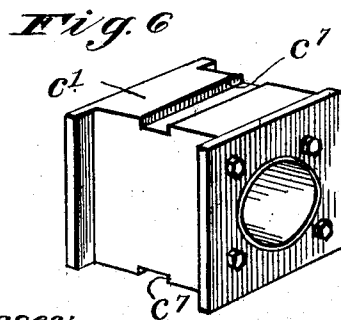
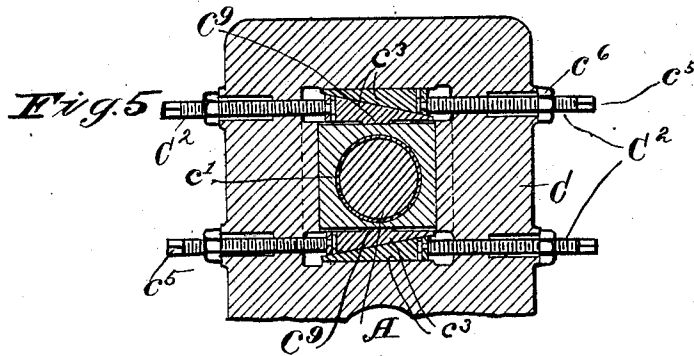
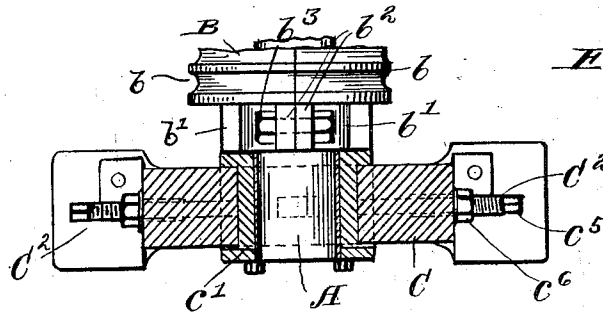
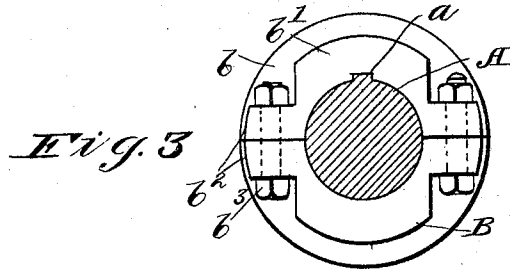
Inventor:
John R. Blakeslee
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Attorney

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2 SHEETS-SHEET 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

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ADJUSTABLE BEARING.

1,047,490.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed June 28, 1909. Serial No. 504,664.

To all whom it may concern:

Be it known that I, JOHN R. BLAKESLEE, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Adjustable Bearings, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The present invention has as its object the provision of forging rolls that will be particularly adapted for use as scrap rolls in reclaiming service, that is, in rolling down the scrap such, for example, as is required to be handled in the car repair plants of railways and in like situations. With this service in view, I have designed the present forging rolls so that they may be more readily removed from their supporting housing, than has heretofore been the case, and at the same time have provided means facilitating the adjustment of the rolls with respect to each other, so as to take up wear. To the accomplishment of these and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claim.

The annexed drawings and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings:—Figure 1 is a front elevation of a set of forging rolls wherein have been incorporated my several improvements, the driving mechanism for said rolls for the most part being omitted; Fig. 2, is an end elevation of such rolls; Fig. 3 is a transverse section through one of the roll shafts, showing an end elevation of the roll mounted thereon; Fig. 4 is a horizontal transverse section taken on the line 4—4, Figs. 1 and 2; Fig. 5 is a vertical transverse section taken on the line 5—5, Fig. 1; Fig. 6 is a perspective view of one of the adjustable roll bearings forming a feature of the invention; while Fig. 7 is a similar view of the wedge-blocks utilized in the adjustment of said bearings.

As has been indicated, the drive gear for the rolls is for the most part omitted. It

will be understood that through such mechanism, power is transmitted to the intermediate of the three shafts A upon which the three rolls B constituting the set illustrated, are mounted, being communicated to the other rolls through intermeshing gears b^4 . Such roll shafts A are journaled at their ends in two end housings C that rise from a base C' of usual construction. Of the bearings that receive the shaft ends, those wherein the intermediate shaft A is journaled, are fixed in said housings, but the bearings for the upper and lower shafts are on the contrary vertically adjustable, comprising blocks c' that are slidably held in vertically elongated openings c^2 in the housings, as indicated in Figs. 2 and 5. In order to secure said bearings in desired vertical position in such openings, two oppositely disposed wedge-blocks c^3 are provided above and below each bearing, such blocks having a tongue and groove engagement with each other. The blocks c^3 are provided on their outer faces with projections c^6 ; the projections c^6 on the outer block of each pair engage grooves in the faces of the recess c^2 , while the projections c^6 on the inner block of each pair engage grooves c^7 in the block c' . By reason of such engagement, said blocks c^3 are held in said openings against any but a longitudinal movement. To thus move them, so as to raise or lower the corresponding bearing blocks, adjusting screws C^2 are provided, one for each block, said screws being threaded in adjacent portions of the housing, and having rotatable engagement with recessed slots c^4 in the corresponding ends of the wedge-blocks. The outer ends c^5 of said adjusting screws are square, and by means of lock nuts c^8 said screws, together with the wedges operated thereby, may be securely fixed in any desired position. By this means, it will be obvious the bearing blocks, wherein the ends of the upper and lower shafts A are journaled, may be in turn firmly secured with the rolls B borne thereby in proper adjustment with respect to the roll borne by the intermediate shaft of the series. The construction of said rolls, moreover, as has been indicated, has been so modified as to permit their ready removal from the housing when it is desired to repair or exchange the same, or when for any other reason it becomes desirable to de-

tach them from the machine. Instead, accordingly, of having the rolls and the shafts integral so as to require the taking down of one of the housings in order to effect such removal, I construct each of my improved rolls B of a shell that is adapted to be mounted upon its corresponding shaft. In order to retain said shell against rotation, the shaft is provided with a longitudinal spline *a* that engages therewith, while to permit removal of the shell the latter is made up of two semi-cylindrical sections fitted to the shaft as just described, and each including an intermediate corrugated body portion *b* forming the roll proper and terminal portions *b'* of reduced diameter provided with apertured ears *b''* through which bolts *b'''* are passed to clamp the sections together on the shaft. When thus screwed upon the shaft, said sections form a complete roll; while to remove such roll it is merely necessary to remove the bolts *b'''*, whereupon the sections composing the roll may be freely lifted out from the machine without disturbing in any way the housings C of the machine, or even the bearings in such housings wherein the rolls are journaled.

Other modes of applying the principle of my invention may be employed instead of the one explained, changes being made as regards the mechanism herein disclosed, provided the means stated by the following

claim or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

In mechanism of the class described, the combination of a frame provided with an opening having parallel upper and lower faces formed with longitudinal grooves; a bearing block within said opening having parallel upper and lower faces provided with longitudinal grooves; two oppositely disposed wedge blocks above said bearing block, and two oppositely disposed wedge blocks below said bearing block, the blocks in each pair being formed with outer faces parallel with the parallel faces of said opening and bearing block, respectively, and having projections slidably fitting the grooves in such faces, and said wedge blocks being formed with complementary inclined faces having tongue-and-groove engagement with each other, and formed with vertically extending slots at their ends; adjusting screws threaded in said frame and provided with heads slidably fitted in the slots at the ends of the wedge blocks; and lock nuts for securing said adjusting screws in selected positions.

Signed by me this 25th day of June, 1909.

JOHN R. BLAKESLEE.

Attested by—

ANNA L. GILL,

JNO. F. OBERLIN.