T. P. WOODHEAD.

HANGER.

APPLICATION FILED DEC. 17, 1914.

1,147,774.

Patented July 27, 1915.

2 SHEETS—SHEET 1.

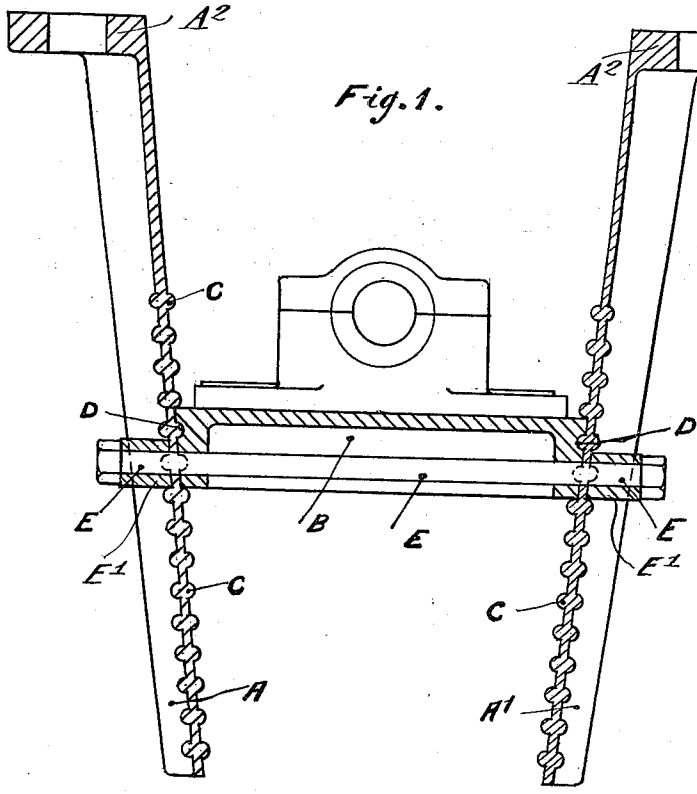


Fig. 1.

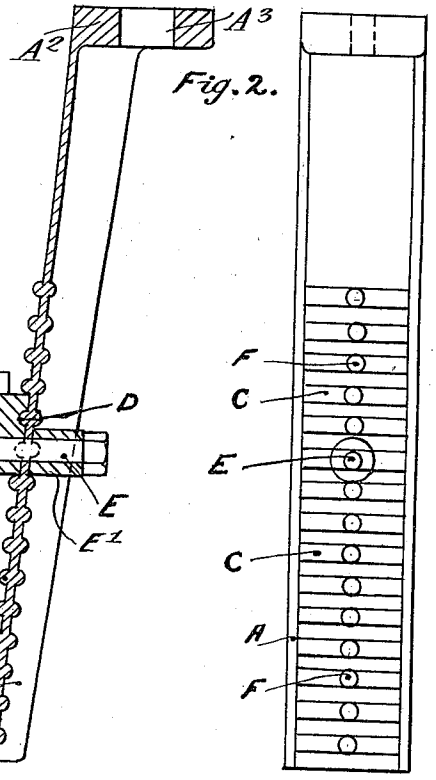


Fig. 2.

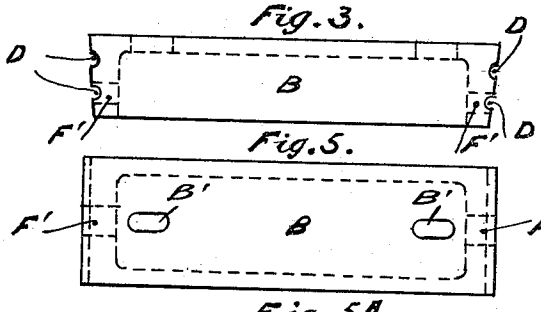


Fig. 3.

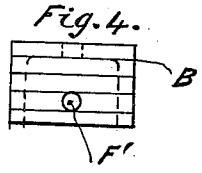


Fig. 4.

Fig. 5.

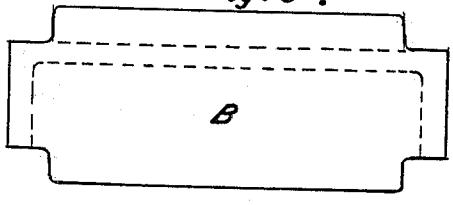


Fig. 5A.

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2 SHEETS—SHEET 2.

Fig. 6.

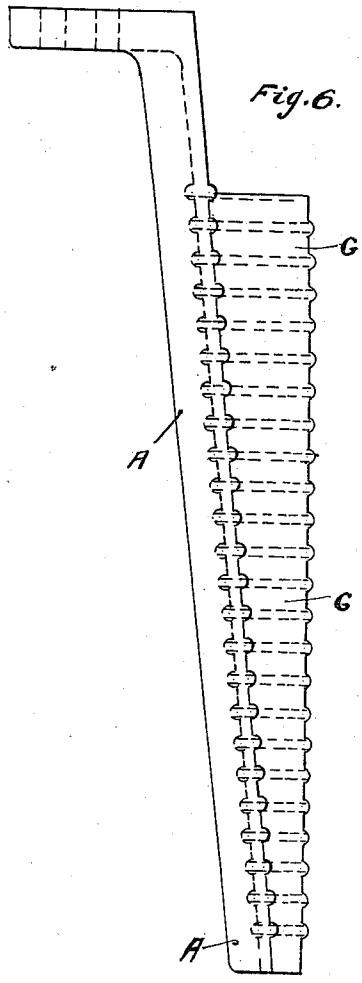


Fig. 7.

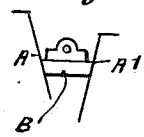


Fig. 8

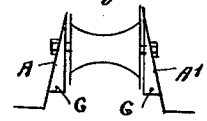
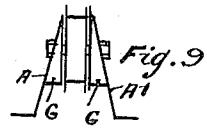


Fig. 9



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HANGER.

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Application filed December 17, 1914. Serial No. 877,834.

To all whom it may concern:

Be it known that I, THOMAS PERCIVAL WOODHEAD, subject of the King of Great Britain, and a resident of Laurel Bank, Potternewton Lane, Chapel Allerton, Leeds, England, have invented certain new and useful Improvements in Hangers, of which the following is a specification.

This invention refers to improvements in hangers or the like, between which hangers a carrier can be supported, the object of the construction hereafter described and claimed being not only to provide a supporting device in which the fixture of the object supported is perfectly safe and secure, but to provide a device in which with equal security, great ease and accuracy, the object supported, such as the axle box, shaft-bearing plumber block or the like, can have its elevation or position adjusted relatively to the hangers, while the parallelism to the vertical plane or horizontal plane, according to the position of the hangers, is truly maintained.

The invention will be described with reference to the accompanying drawings.

Figure 1 shows in vertical longitudinal section, a pair of hangers having fixed between them a carrier, supporting a plumber block, and Fig. 2 is a side elevation of the parts shown in Fig. 1. Fig. 3 is a front elevation of the carrier member detached, Fig. 4 being an end elevation of the same, and Fig. 5 a plan view; Fig. 5^A is a plan view similar to Fig. 5 but showing a slight variation in the shape of the carrier member in plan. Fig. 6 shows an elevation of one of the hangers of a pair, each of which hangers comprises two parts as illustrated. Figs. 7, 8 and 9 show, by diagrams, a few applications of the invention, Fig. 7 showing what I may term staggered hangers supporting between them the carrier member and a bearing block; Fig. 8 is a view illustrating an application of hangers similar to the construction shown at Fig. 6, each hanger being composed of two parts and carrying between them a roller, and wherein the bolt, hereinafter described, holding the parts together forms also the axis of the roller, and Fig. 9 is a similar arrangement to that of Fig. 8 showing the device carrying a jockey pulley, or it may obviously carry a plurality of pulleys.

Referring to Figs. 1 and 2 which illustrate an example of construction of my invention, I provide a pair of hangers or brackets A, A^1, each hanger, as illustrated, having a flange A^2 by which the said hangers can be bolted to a supporting beam, for instance by bolts passing through holes A^3 in such flanges, and such holes may be slotted to permit the hangers being distanced, the one from the other, without wholly detaching the same.

The inner faces of the hangers A, A^1 are each formed with a series of equi-distant bars, ribs or projections C, extending in a direction transversely of the length of the hanger, and beyond this each hanger is formed with equi-distant holes F extending through the supporting wall of the said hanger in a direction at right angles to a center line extending midway between the two hangers, the holes being, as shown in the drawing, formed at points through the ribs C, and the holes in one hanger are immediately opposite the holes in the opposed hanger.

A carrier member B is provided, comprising in the construction, an inverted box-like structure, as shown at Figs. 3 to 5^A. Formed on the outer ends with transverse recesses D at such distances apart as to aline with and receive preferably two or more ribs C of the hangers when the carrier member is placed or slid endwise between them, and whereby obviously the carrier can be placed in a truly horizontal position and can be moved from that position either higher or lower, by one of the hangers being adjusted nearer to or farther from the other, and the horizontal position of the carrier is likewise assured.

In order to secure the carrier member B in its location between the hangers A, A^1, shown at Figs. 1 and 2, the said carrier B is formed with a bolt hole F^1 through each of its downwardly extending ends, the center of the bolt holes F^1 being coincident with recesses in the ends of the carrier which are to receive ribs on the hangers. When therefore the carrier is slid into position as shown at Fig. 1, the bolt E can be slid through the alining holes in the hangers A, A^1 and the ends of the carrier, while the recesses D in the ends of the carrier receive ribs C. The bolt E is then secured in position to clamp and retain the carrier by means of a head on one end and a nut on the other end of the bolt, or as shown, by sleeves E^1 being slipped over the ends of the bolt E to bear against the rear faces of the hangers and nuts ap-

plied to the screw-threaded ends of the bolt E. The object supported is secured on to the carrier B by bolts or in any other suitable manner, and preferably in such manner that it can be adjustably fixed thereon, as for instance, by providing slotted holes, as shown at B^1 Fig. 5, in the carrier, to take bolts passing through the object supported.

The hangers A, A^1 in the construction shown, Figs. 1 and 2, are formed with external webs, and moreover the external faces of the said hangers are formed with ribs C coinciding with the similar ribs already described as being formed on the interior and facing surfaces of said hangers so that in some cases if desired, the hangers may be reversed in position and still receive the same carrier member.

In some cases the carrier member B, as shown at Fig. 5^A, may have its carrying surface extended laterally, and its ends may be made of reduced width so as to pass in between the webs shown on the external faces of the hangers, Fig. 1, when the hangers are reversed.

It will be quite well understood that the hangers shown at Fig. 1 may be inverted in position so that the flanges A^2 of the hangers can be secured to the floor. Or in the position shown at Fig. 1 the flanges need not be secured necessarily to a horizontal beam, but may each be supported by pedestals from the floor.

With the hangers and the carrier B as already described, in order to adjust the elevation of the carrier it is necessary to adjust the position of one or both hangers laterally, but in order to avoid this, according to this invention, each hanger may be provided with a supplementary wedge-shaped member G, as shown applied to one of such hangers A at Fig. 6. The supplementary wedge-shaped member G is formed with transverse grooves, calculated, when the two members are brought together, to receive the ribs C, while on the opposite face the wedge-shaped member has ribs, and the angle is such that the inner ribbed face of the wedge-shaped member is vertical and parallel with the inner face of the wedge-shaped member G of the opposite hanger. By this arrangement it will be quite clear that the carrier B may be adjusted to any elevation without moving either of the hangers, and moreover the effective distance apart of the faces of the wedge-shaped members can be determined by their relative vertical positions on the hangers. The wedge-shaped members and carrier are secured in position to the hangers by means of a bolt as described at Fig. 1.

As previously remarked with reference to Figs. 1 and 2, the hangers may be reversed in position, and such a reversal is illustrated at Figs. 8 and 9.

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

1. In hangers or the like for supporting shaft bearings and the like; the combination of a pair of hangers, having means for fixing and supporting said hangers at a distance apart, and having a series of ribs formed at equal distances apart on the facing surfaces of said hangers and extending transversely of the length thereof, a carrier member to which the object to be supported is secured, the end faces of said carrier member having recesses formed therein to receive one or more of the ribs projecting from the facing surfaces of the hangers when the carrier member is placed between the same, each end of said carrier member having a through bolt hole and each of said hangers having a superposed series of through bolt holes so arranged that in whatever position said carrier is placed between said hangers so that the recesses in said carrier ends receive said ribs said bolt holes in the ends of said carrier coincide with bolt holes in said hangers, a bolt to pass through said holes of said carrier and said hangers, and means for securing said bolt to clamp said carrier between said hangers.

2. In hangers or the like for supporting shaft bearings and the like; the combination of a pair of hangers with their facing surfaces oppositely inclined, having means for fixing and supporting said hangers, and having a series of ribs formed at equal distances apart on the facing surfaces of said hangers and extending transversely of the length thereof, a carrier member to which the object to be supported is secured, the end faces of said carrier member having recesses formed therein to receive one or more of the ribs projecting from the facing surfaces of the hangers when the carrier member is placed between the same, each end of said carrier member being formed with a through bolt hole and each of said hangers having a superposed series of through bolt holes so arranged that in whatever position said carrier is placed between said hangers so that the recesses in said carrier ends receive said ribs said bolt holes in the ends of said carrier coincide with bolt holes in said hangers, a bolt to pass through said holes of said carrier and said hangers, and means for securing said bolt to clamp said carrier between said hangers.

3. In hangers or the like for supporting shaft bearings and the like; the combination of a pair of hangers with their facing surfaces oppositely inclined, having means for fixing and supporting said hangers, and having a series of ribs formed at equal distances apart on the facing surfaces of said hangers and extending transversely of the length thereof, a carrier member to which the object to be supported is secured, the end

faces of said carrier member having recesses formed therein to receive one or more of the ribs projecting from the facing surfaces of the hangers when the carrier member is placed between the same each end of said carrier member having a through bolt extending through opposite recesses therein and each of said hangers having a superposed series of through bolt holes extending through the ribs thereon so arranged that in whatever position said carrier is placed between said hangers with the recesses of said carrier ends receiving said ribs said bolt holes in the ends of said carrier coincide with bolt holes in said hangers, and a bolt passing through said holes of said carrier and said hangers to secure the same in position.

4. In hangers or the like for supporting shaft bearings and the like; the combination of a pair of hangers with their facing surfaces oppositely inclined, having means for fixing and supporting said hangers, and having a series of ribs formed at equal distances apart on both surfaces of each of said hangers and extending transversely of the length thereof, a carrier member to which the object to be supported is secured, the end faces of said carrier member having recesses formed therein to receive one or more of the ribs projecting from the facing surfaces of the hangers when the carrier member is placed between the same, each end of said carrier member being formed with a through bolt hole and each of said hangers having a superposed series of through bolt holes so arranged that in whatever position said carrier is placed between said hangers so that the recesses in said carrier ends receive said ribs, said bolt holes in the ends of said carrier coincide with bolt holes in said hangers, a bolt to pass through said holes of said carrier and said hangers, and means for securing said bolt to clamp said carrier between said hangers.

5. In hangers or the like for supporting shaft bearings and the like; the combination of a pair of hangers with their facing surfaces oppositely inclined, having means for fixing said hangers, and having a series of ribs formed at equal distances apart on the facing surfaces of said hangers and extending transversely of the length thereof, two wedge-shaped members each formed with recesses and ribs on their opposite faces respectively adapted to receive the ribs of a hanger on one face, said wedge-shaped members having their opposite faces at such an angle that said opposite faces are vertical and parallel when said wedge-shaped members are respectively placed in contact with the facing surfaces of said hangers, a carried member to which the object to be supported is secured, the end faces of said carrying member having recesses formed thereon to receive one or more of the ribs on the vertical faces of said wedge-shaped members, and means for securing said carrier member, said wedge-shaped members and said hangers together.

THOMAS PERCIVAL WOODHEAD.

Witnesses:
HERBERT DUNN,
W. E. OLD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."