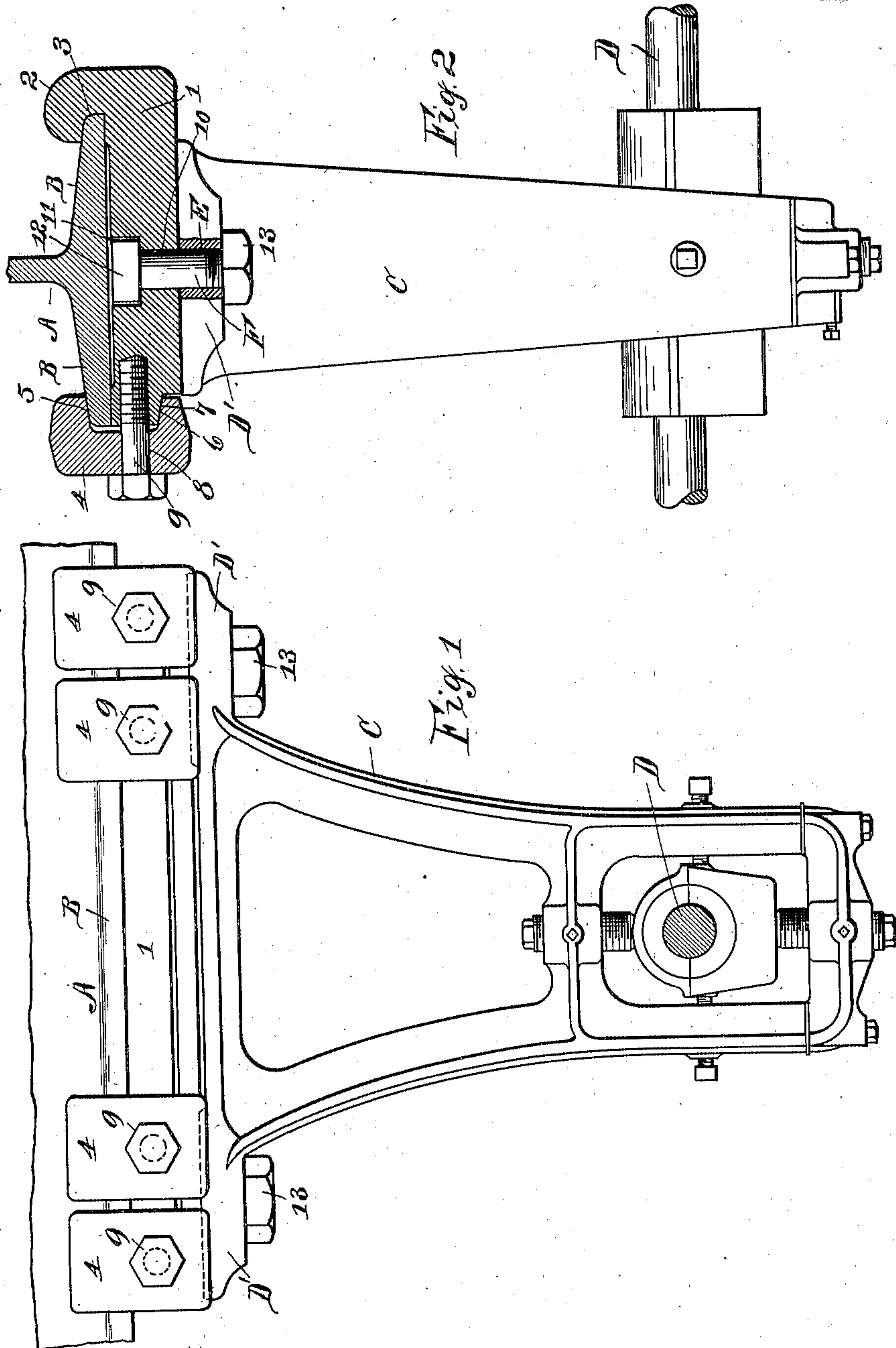


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APPLICATION FILED MAR. 27, 1909.

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2 SHEETS—SHEET 1.



WITNESSES:
Chas. H. Hughes.
Chas. W. Kirschbaum

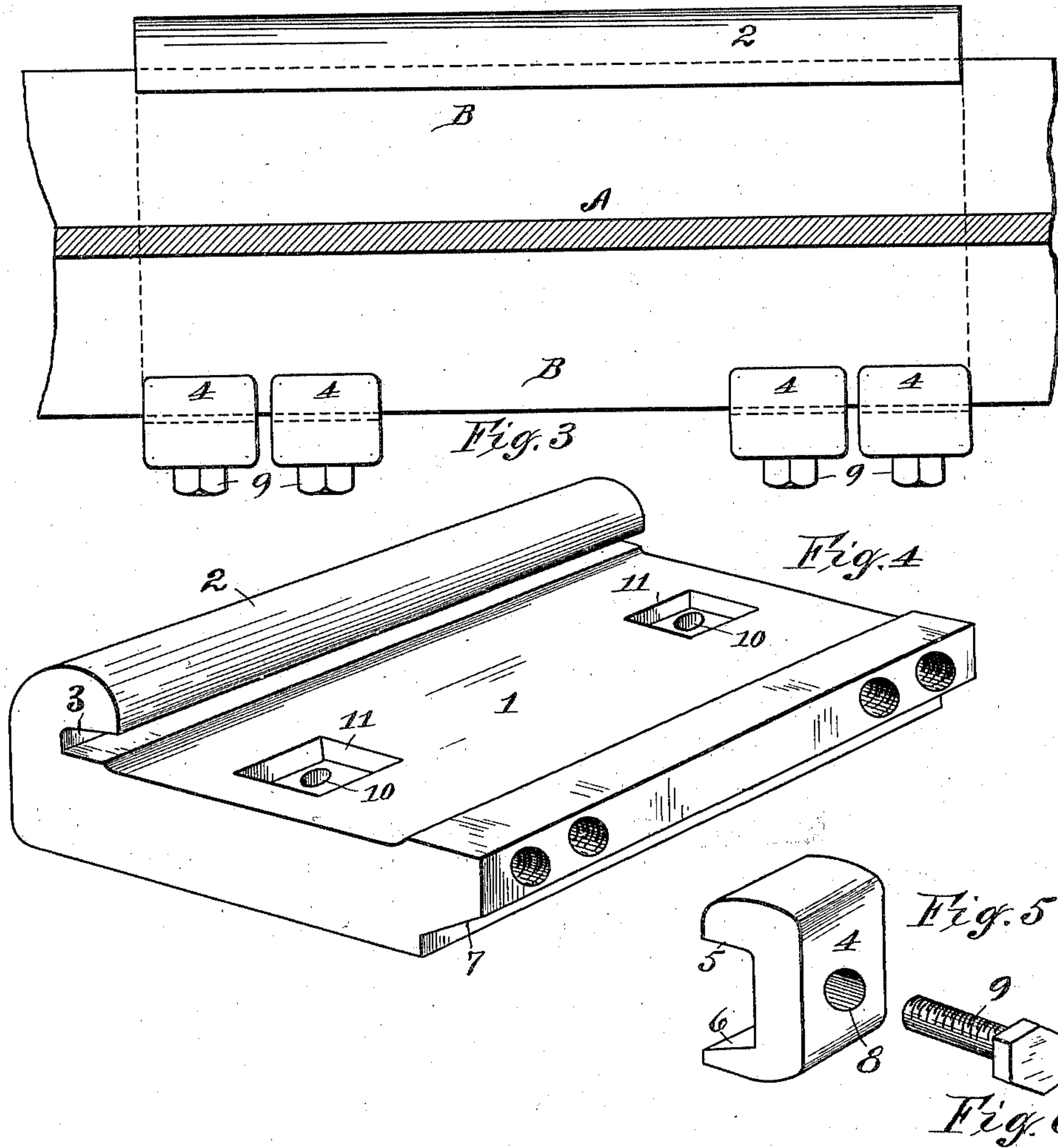
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UNITED STATES PATENT OFFICE.

CHARLES S. GRANNIS, OF SYRACUSE, NEW YORK, ASSIGNOR TO NEW PROCESS RAW-HIDE COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

ADJUSTABLE SHAFT-HANGER ATTACHMENT TO GIRDERS.

966,906.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed March 27, 1909. Serial No. 486,131.

To all whom it may concern:

Be it known that I, CHARLES S. GRANNIS, a citizen of the United States, and resident of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Adjustable Shaft-Hanger Attachments to Girders, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention pertains to well known hangers employed in manufacturing establishments for supporting the line-shafting and counter-shafts.

The main object of the present invention is to provide simple, efficient and inexpensive means for conveniently attaching a shaft-hanger to the well known flanged iron girders, more particularly to a so called I-beam, commonly used in building construction.

To that end the invention resides essentially in the combination with a flanged-girder, of a shaft-hanger attachment comprising a suspender provided with means for clamping it adjustably to the flanges of the girder, and means detachably connecting the hanger to the suspender.

Furthermore the invention resides in certain novel details in the construction of the attachment as hereinafter fully described and set forth in the claims.

In the accompanying drawings Figure 1 illustrates a side view of a shaft-hanger secured to the girder by the suspension device embodying my invention; Fig. 2 is an edge view of the hanger, with the girder and device shown in section; Fig. 3 is a longitudinal sectional view taken through the web of the girder to illustrate more clearly the arrangement of the clamping means; Fig. 4 is a perspective view of the hanger suspension plate; and Figs. 5 and 6 are detail perspective views of a clamping-clip and its attaching bolt respectively.

Like characters of reference indicate like parts in the several views of the drawings.

—A— denotes a portion of an iron girder formed with horizontal bottom flanges —B—B— and known as an I-beam commonly used in building construction.

—C— denotes the well known hanger for supporting a line-shaft or a counter-shaft represented at —D—, said hanger being formed at its top with the usual horizontal bearing-portions —D'—D'— provided with

vertical apertures —E—E— for the reception of bolts —F—F—. It is well known that it has been the usual practice to apply said bolts to wooden beams or other objects for sustaining the hanger.

The purpose of my invention is to securely fasten the shaft-hanger to the girder shown by suspension means which will not necessitate a change in the construction of the hanger, and will permit the latter to be shifted lengthwise of the girder if required.

The form of hanger-attachment which I prefer to use comprises a rectangular cast-metal plate —1— applied to the bottom of the girder —A— and by which the hanger —C— is rigidly suspended from the girder. This suspension-plate —1— has one of its sides projecting beyond the corresponding flange —B— of the girder and is provided at the edges with means for clamping it to the said flanges. The opposite side of the plate is preferably flush with the edge of the flange. To effect this clamping, I form the projecting side edge of the plate with the rigid jaw —2— consisting of an upwardly projecting lip formed with a longitudinal groove —3— shaped in cross-section to embrace the adjacent flange —B—. The opposite side edge is provided with a plurality of detachable and adjustable jaws —4—4— composed preferably of steel. I prefer to employ two pairs of these jaws disposed at the respective ends of the plate as shown in Figs. 1 and 3. Said jaws —4—4— embrace the adjacent flange and plate and each is formed with divergent gripping faces —5— and —6— to conform respectively to the top of the flange and an undercut wedging surface —7— as clearly illustrated in Fig. 2. Each jaw —4— is provided with a plain transverse aperture —8— for the reception of a tap-bolt —9— screwed into the edge of the plate. It will be seen that by tightening the bolts —9—, the jaws —4—4— and jaw —2— will securely clamp the suspension-plate —1— to the flanges, and by loosening the bolts the plate can be readily shifted longitudinally thereon and at the same time the said plate can be easily and conveniently detached when required.

To connect the hanger —C— to the plate —1—, I provide the end portion of said plate with plain vertical apertures —10—10— which coincide with the apertures —E—E—

in the top bearing-portions —D'—D'— of the hanger, through which apertures the aforesaid bolts —F—F— pass, it being understood that the apertures —E—E— are elongated as usual to facilitate the entering of said bolts therethrough. At each aperture —10— the upper face of the plate is provided with a recess —11— shaped correspondingly with the head —12— of the bolt —F— to lock the latter against rotation in applying thereto the nut —13— which engages the bottom of the bearing portion —D'— of the hanger as clearly illustrated in Figs. 2 and 4. It will be observed that the shaft-hanger may be easily and conveniently taken down by simply removing the nuts —13—13—.

While I prefer to employ a plurality of detachable jaws —4— arranged as shown, at the same time it will be understood that in some instances I may use a single jaw extending the full length of the suspension-plate —1— and provided with two or more clamping bolts.

Having described my invention what I claim is:—

1. In combination with a girder, a shaft-hanger attachment comprising a plate extending along the bottom of the girder and provided with jaws for clamping it to opposite sides of the girder, and hanger-connecting bolts passing through the plate independently of the said girder as set forth.

2. In combination with a girder, a shaft-hanger attachment comprising a plate extending along the bottom of the girder and formed with a jaw engaging one side of the girder, a detachable jaw on the plate for engaging the opposite side of the girder, a clamping-bolt extending horizontally through the detachable jaw and entering the

plate, and hanger-connecting bolts passing vertically through the plate independently of the girder as set forth.

3. In combination with a girder provided with horizontal bottom flanges, a shaft-hanger attachment comprising a rectangular plate extending along the bottom of the girder, and provided at its opposite sides with flange gripping jaws, and provided at the center of its width with vertical apertures, and in its upper face with recesses at the apertures, and hanger-connecting bolts extending through the apertures and provided with heads seated in the said recesses as set forth.

4. In combination with a girder formed with two opposite horizontal bottom flanges, a shaft-hanger attachment comprising a rectangular plate extending along the bottom of the girder, and projecting at one side edge beyond one of the flanges, said projecting portion being formed with a jaw consisting of an upwardly projecting lip provided with a longitudinal groove receiving the adjacent flange, detachable jaws embracing the opposite side edge and corresponding flange, clamping-bolts passing horizontally through the detachable jaws and screwed into the plate, said jaws each formed with divergent gripping-faces to conform to the top of the flange and an undercut wedging surface on the plate, the plate being provided with vertical apertures, and having its top face provided with recesses at the apertures, and hanger-connecting bolts passing through said apertures independently of the girder and provided with heads seated in the recesses as set forth and shown.

CHARLES S. GRANNIS.

Witnesses:

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D. A. EDDY.