

No. 719,214.

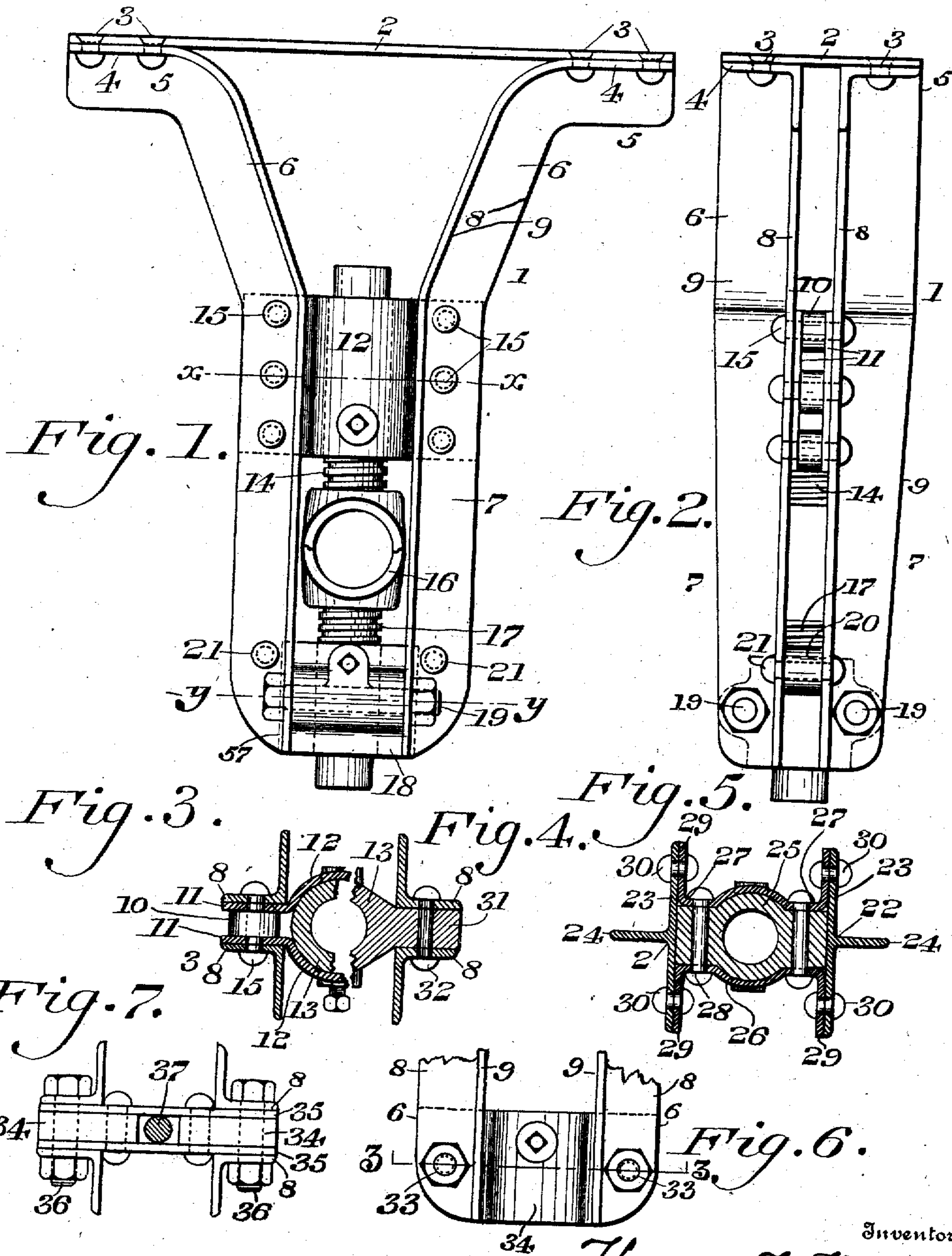
PATENTED JAN. 27, 1903.

H. T. HALLOWELL.
SHAFT HANGER.

APPLICATION FILED JUNE 11, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

P. F. Tagler.
C. S. May

Inventor

Howard T. Hollowell.

By

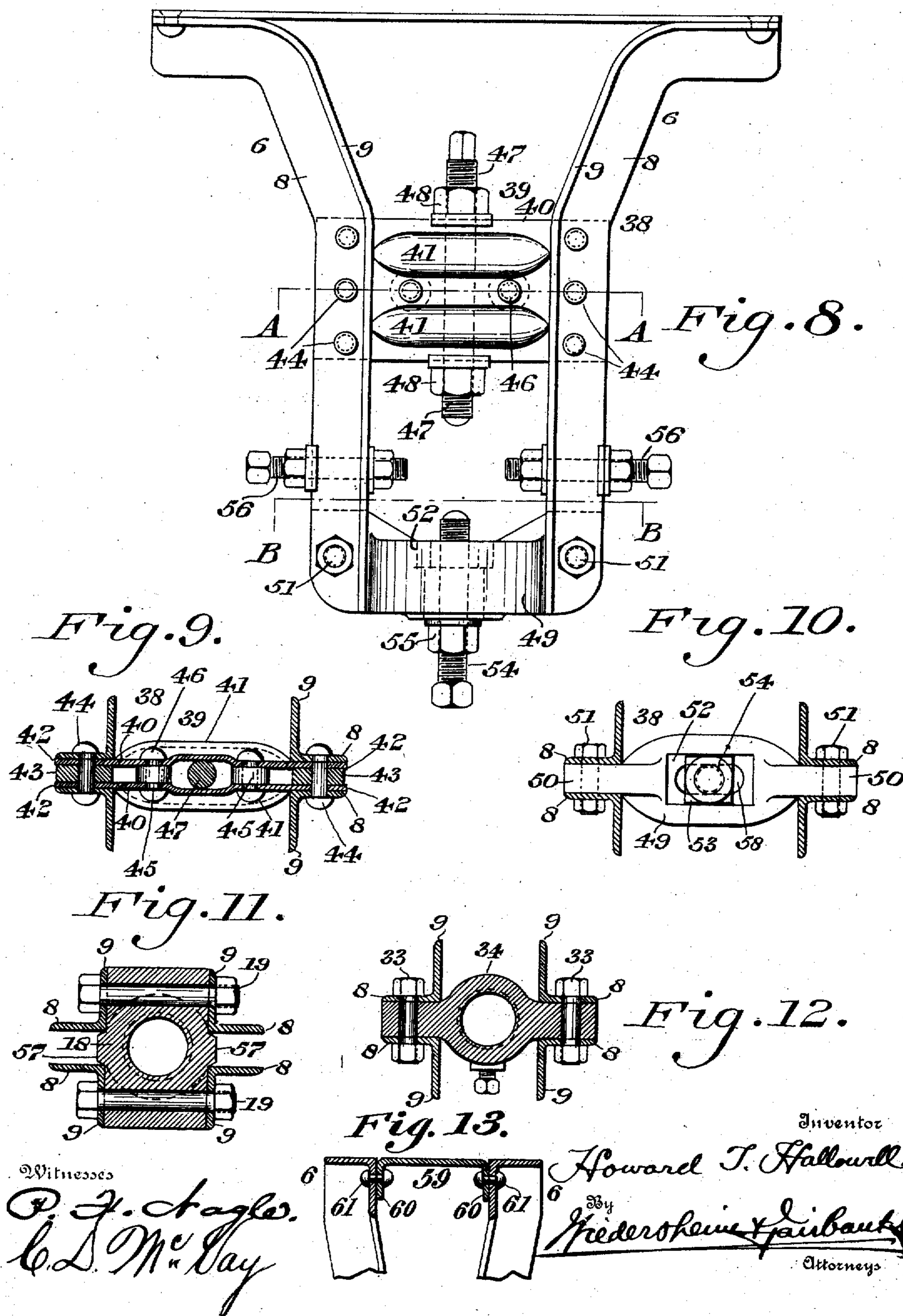
Friedersheim & Fairbanks.
Attorneys

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UNITED STATES PATENT OFFICE.

HOWARD T. HALLOWELL, OF DAVISGROVE, PENNSYLVANIA.

SHAFT-HANGER.

SPECIFICATION forming part of Letters Patent No. 719,214, dated January 27, 1903.

Application filed June 11, 1901. Serial No. 64,062. (No model.)

To all whom it may concern:

Be it known that I, HOWARD T. HALLOWELL, a citizen of the United States, residing at Davisgrove, in the county of Montgomery, State of Pennsylvania, have invented a new and useful Improvement in Shaft-Hangers, of which the following is a specification.

My invention consists of a novel construction of a hanger, which is constructed from angle-shaped metal, whereby great strength and rigidity is obtained, provision being further made for the assembling of the parts in a cheap and effective manner and means being provided for enabling the adjusting devices employed to be supported and actuated according to requirements with great facility.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

Figure 1 represents a side elevation of a hanger embodying my invention. Fig. 2 represents an end elevation of Fig. 1. Fig. 3 represents a section on line *xx*, Fig. 1, showing one manner of securing in position the intermediate adjusting device. Fig. 4 represents a sectional view somewhat similar to Fig. 3, but showing different means for securing the intermediate adjusting device in position. Fig. 5 represents a modified form of hanger-leg and means for securing the intermediate adjusting device in position. Fig. 6 represents a side elevation of the lower extremity of a hanger, showing a different form of lower block or tie-piece for supporting the lower adjusting device. Fig. 7 represents a bottom plan view of a slightly-modified form of hanger, wherein I have shown a smaller adjusting device employed. Fig. 8 represents another embodiment of my invention. Fig. 9 represents a section on line *AA*, Fig. 8. Fig. 10 represents a section on line *BB*, Fig. 8. Fig. 11 represents a section on line *yy*, Fig. 1. Fig. 12 represents a section on line *zz*, Fig. 6. Fig. 13 represents a sectional view showing a different device for securing and bracing the upper portion of the hanger-legs.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a hanger, consisting of the upper plate 2, to

which are attached by means of the rivets or other suitable fastening devices 3 the flanges 4 of the feet 5, which latter project from the hanger-legs 6, which have the depending body portion 7, it being apparent that each of said legs consists of a pair of angle-shaped pieces of metal constructed of the flanges 8 and 9, said legs being separated by the spacing devices 10, which are interposed between the extremities 11 of the clamping-strips 12, which surround and retain in position the intermediate brace or bushing 13, which carries the upper adjusting device 14, the parts being held in assembled position by means of the rivets or other fastening devices 15, as will be understood from Fig. 3.

16 designates a journal-box which is held between the extremity of the upper adjusting device 14 and the lower adjusting device 17, the latter being mounted in the end brace 18, which is retained in position by means of the bolts or other fastening devices 19, which pass through the flanges 9, it being apparent that the lower extremities of the hanger-legs are provided with spacing devices 20 or their equivalents, through which the rivets or other fastening devices 21 pass.

In Fig. 5 I have shown each of the hanger-legs as composed of a single piece of metal 22, T-shaped and consisting of the flange or part 23 and the rib 24, the bushing 25 for the upper adjusting device being held in position between the clamping strips or devices 26, which have the portions 27, through which the bolts, rivets, or other fastening devices 28 pass, said clamping devices being also provided with the flanges 29, which are secured to the flanges 23 by means of the rivets or other fastening devices 30.

In the construction seen in Fig. 4 I have shown the bushing 13 as provided with an extension 31, which is adapted to be clamped between the flanges 8 by means of the rivets or other fastening devices 32, it being understood that the construction seen in Fig. 4 may be employed in lieu of the structure seen in Fig. 3.

In Fig. 6 I have shown the lower block 34 as held in position by the bolts or equivalent fastening devices 33.

In Fig. 7 I have shown the lower extremi-

ties of the hanger-legs as provided with the blocks 34, which are clamped between the strips 35 and the flanges 8 of the hanger-legs by means of the bolts or other fastening devices 36, it being evident that if desired a small adjusting device 37 can be used in place of the larger adjusting devices 14 and 17 seen in Fig. 1.

It will be understood that if desired adjusting devices located at an angle to the devices 14 and 17 may be employed, if desired.

It will be thus seen from the foregoing that by my invention I have produced a very strong, rigid, and durable structure which can be cheaply manufactured and is adapted to withstand great strain.

In Figs. 8, 9, and 10 I have shown another form of hanger 38, the legs 6 of which are provided with the flanges 8 and 9, constructed substantially as already described with respect to Figs. 1 and 2.

39 designates an intermediate brace consisting of the plate or plates 40, which may be provided with the corrugations 41, although these may be omitted in some instances, it being apparent that the extremities 42 of said plates are spaced apart by the blocks 43 and held in position relative to the flanges 8 and said blocks by means of the rivets 44. The plates 40 are spaced apart by means of the devices 45, through which the rivets 46 pass.

47 designates the upper adjusting device, which passes between the plates 40 and is held in the desired position by jam-nuts 48.

49 designates the lower brace, which has the end portions 50, held between the flanges 8 by the bolts or other fastening devices 51.

52 designates a recess in the upper portion of the tie-piece 49, which receives the nut 53, through which passes the lower adjusting device 54, which is provided with the lower jam-nut 55.

56 designates adjusting screws or devices which are arranged at a right angle to the adjusting devices 47 and 54, although it will be apparent that only the two latter may be employed, if desired.

It will be apparent that if desired the end brace 18 (seen in Figs. 1 and 11) may be provided with the lugs 57, which extend into the space between the flanges 8, as will be understood from Fig. 11.

It will be seen from Figs. 8 and 10 that I have shown the adjusting device 54 as located in a slot 58, whereby said adjusting device may have a slight lateral movement, if desired, although it will be apparent that in some instances the adjusting device 54 may be simply tapped into the tie-brace 49 in case a horizontal or lateral adjustment is not desired. It will also be apparent that instead of using the construction seen in Fig. 9 I may arrange the portions of the plates 40, which surround the upper adjusting device 47, so that no lateral play will be permitted to the aforesaid upper adjusting device. It will be apparent from an inspection of Fig. 11 that

if desired I may extend the lugs 57, so that the same may appear elongated to substantially the same extent seen in Fig. 12.

It will be apparent that if desired I may spread the angle-irons as they approach the plate 2, so that the same would have the appearance of slightly diverging in Fig. 2, by which means I can make much wider feet and effect a saving of metal, and, vice versa, if desired, the hanger-legs may be assembled more closely together when a shorter hanger is desired, in which case I could dispense with the spacing devices 10 seen in Fig. 2.

I desire to lay special stress upon the construction of hanger-legs, since it will be seen that by the employment of angle-irons having the contour shown in Figs. 1 and 3 a simple and effective hanger having legs of great strength and rigidity is produced, it being apparent that the hanger-legs diverge as they approach the feet or plate 2, and the manner of securing the intermediate brace or bushing and the end tie-piece or block to the flanges of the hanger is exceedingly simple and effective.

In Fig. 13 I have shown the portion of the hanger-leg 6 as bridged and braced by the strip or plate 59, which has the depending flanges 60, which are secured to the contiguous parts of the hanger-leg by means of the rivet or other fastening devices 61.

The plate 40, Fig. 9, may be used in place of the solid end brace 49, Fig. 10, and the plates may also be attached to the other angle of the leg, in which case the outer edges of the plates 40 would be bent outwardly, so that it would form flanges, thereby enabling it to be attached to the flange of angle-irons similar to the construction shown in Fig. 5 by means of rivets, bolts, or the like. The intermediate portion of the plates between the flanges may be formed to conform to the outline of adjusting devices similar to Fig. 5, but without the bushing, or an adjusting device may fit in a longitudinal hole similar to Fig. 9, or the adjusting device may equally as well be fitted into a tapped hole directly into the plates, said adjusting devices being provided with jam-nuts or the equivalent to keep the same in their adjusted position. It will be understood that the intermediate and end braces may be similar, thereby using the same dies in forming the same. It will be also understood that the adjusting devices 56 may fit in a tapped hole made by making the flange 8 of angles, Fig. 8, so that at the adjusting devices 56 the flanges 8 will partially conform the bolts to enable the said flanges of angles to be tapped, or in certain cases the adjusting devices 56 may be mounted between angles in a separate piece or pieces.

It will be understood that I have not shown all minor constructions which come in the scope of this invention, the chief underlying principle being that the legs are constructed of a plurality of angles and secured within respective positions by means of an interme-

diate brace and an end brace, all of which may be modified, and by adding a plate or plates at junction of feet to legs, if desired, to be used in certain cases, but still in the scope of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A shaft-hanger comprising legs provided with feet, each of said legs consisting of a pair of spaced angular-shaped members, the marginal flanges of which extend at substantially right angles to each other, an intermediate brace secured to said legs, substantially as described, an upper adjusting device mounted in said brace, an end brace secured between the lower portions of said legs, a lower adjusting device carried by said end brace, and a journal-box supported between said adjusting devices.

2. A shaft-hanger comprising legs, provided with feet, each of said legs consisting of a pair of spaced angular-shaped members, the marginal flanges of which extend at substantially right angles to each other, a plate to which said feet are secured, the upper portions of said legs diverging from substantially the middle portion of the hanger toward said feet, an intermediate brace secured to the flanges of said legs, an upper adjusting device mounted in said brace, means for securing in position the lower portion of said legs, and the lower adjusting device passing through said means.

3. A shaft-hanger comprising legs provided with feet, a plate secured to said feet, each of said legs consisting of a pair of parallel spaced angular-shaped members, the marginal flanges of which extend at substantially a right angle to each other, an intermediate brace secured to the flanges of said legs, an

independent end brace secured to the lower portions of said legs, and upper and lower adjusting devices supported in said braces.

4. A shaft-hanger comprising legs provided with feet, each of said legs consisting of a pair of parallel spaced angular-shaped members, the marginal flanges of which extend at substantially right angles to each other, the upper portions of said legs diverging from their middle portions toward said feet, an intermediate brace for the legs having its ends secured between the outwardly-projecting flanges of said legs, and fastening devices for the lower portions of said legs.

5. A shaft-hanger comprising legs provided with feet, a plate secured to said feet, each of said legs consisting of a pair of parallel spaced angular-shaped members, the marginal flanges of which extend at substantially a right angle to each other, an intermediate brace having its ends secured between the flanges of said legs, and an end member secured to said flanges at the lower portions of said legs.

6. A shaft-hanger comprising a plurality of angle-irons, arranged to form legs each consisting of parallel spaced members, said angle-irons terminating in feet, combined with an intermediate brace securing said angle-irons rigidly in position at their intermediate portions, the lower ends of said angle-irons being separated, an end brace secured to the lower termini of said angle-irons, adjusting devices mounted in said braces and horizontal adjusting devices mounted in said legs between the said angle-irons.

HOWARD T. HALLOWELL.

Witnesses:

E. H. FAIRBANKS,

WM. CANER WIEDERSHEIM.