G. P. SLATER.

DERRICK.

APPLICATION FILED AUG. 4, 1920.

1,393,842.

Patented Oct. 18, 1921.

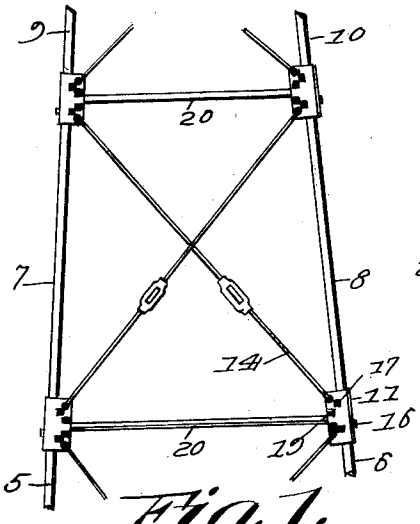


Fig. 1.

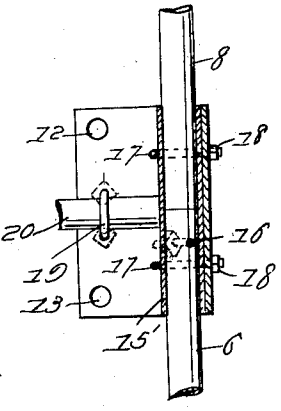


Fig. 4.

Fig. 2.

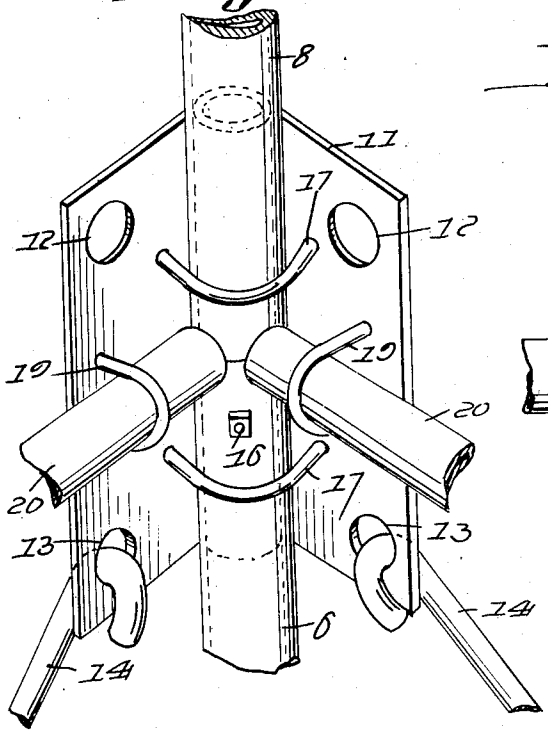
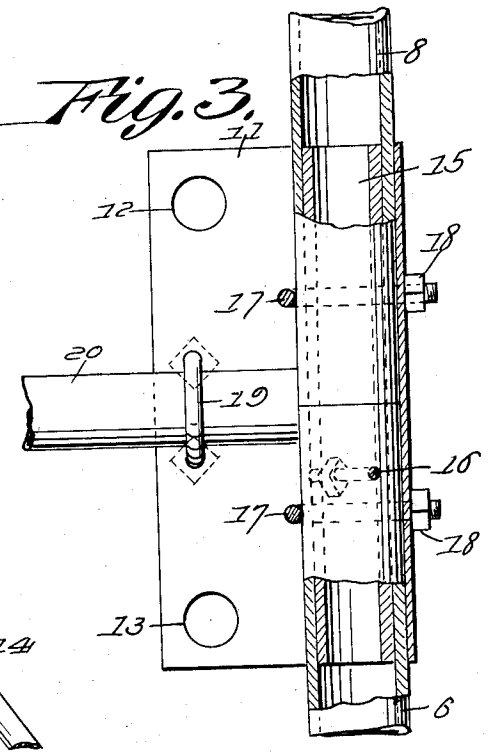


Fig. 3.



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1,393,842.

Specification of Letters Patent. Patented Oct. 18, 1921.

Application filed August 4, 1920. Serial No. 401,106.

To all whom it may concern:

Be it known that I, GUY P. SLATER, a citizen of the United States of America, and resident of Tulsa, in the county of Tulsa and State of Oklahoma, have invented certain new and useful Improvements in Derricks, of which the following is a specification.

This invention relates to derricks or frames therefor, the said invention having for its object the provision of novel connection between sections of a derrick whereby the said sections may be installed or removed expeditiously and whereby the joint between the sections of the derrick will possess usual strength and durability.

A still further object of this invention is to produce a derrick frame or a joint therefor comprising comparatively few inexpensive parts which can be readily installed or removed as stated.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawing forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in elevation of a fragment of the derrick frame showing the invention applied thereto;

Fig. 2 illustrates an enlarged detail perspective view of one of the joints; and

Fig. 3 illustrates a longitudinal sectional view thereof.

Fig. 4 illustrates a sectional view embodying a slight modification.

In these drawings 5 and 6 denote two of the corner legs of the derrick, 7 and 8 are the corner legs of an extension and 9 and 10 represent corner legs of the succeeding extension, the same being practically duplicated except as to their relation to each other and this is changed owing to the fact that the legs converge toward the top.

As the joints between any two of the legs are the same regardless of which section is described, one of the joints and parts relating to it will be described and the description will be understood as applying to all of such joints.

Corner plates 11 are bent so that the sides are practically at right angles to each other and each side has apertures 12 and 13 intended to receive the ends of a brace or guy wires 14.

The upper end of one post 6 and the lower end of one post 8 are connected together by a tubular splicing member 15 the external diameter of which is equal to the internal diameter of the said posts, so that the posts telescope on the splicing member, and in the interests of safely anchoring the splicing member, a bolt 16 extends through the splicing member and a leg.

The plate 11 extends above and below the joint between the members 6 and 8 preferably to an equal extent so that at the angular portion of the plate, it embraces both the legs 6 and 8 and it is held or clamped against these legs by U-bolts 17 having nuts 18 applied at their outer ends by which the loop portions of the bolts and the angular portion of the plate are tightly bound against the legs to coöperate with the member 15 within the legs to strengthen the structure so that the said structure is of greater strength at these joints than at points therebetween. The said plates are furthermore provided with U-bolts 19 embracing the girths 20, the said girths having their ends preferably abutting the legs so that there is no lost motion of a perceptible character between the ends of the girths and the said legs.

When the parts are assembled and clamped together as shown in Fig. 2, the frame structure of the derrick is very strong, and as shown in Fig. 2, the girths have their ends abutting the leg sections at the joints so that the ends of the girths press against both the lower and upper leg sections where they are connected together.

In Fig. 4 I have illustrated all of the elements of the device in substantially the same relation as described in connection with the disclosures of Figs. 1, 2, and 3, but in this modified construction the sleeve 15^1 is applied externally of the leg sections 6 and 8 instead of being on the inside of those leg sections.

I claim:

1. In a derrick, leg sections of tubular material, a splicing member inserted in the said leg sections at their junction, means for holding the splicing member in place, a splicing plate angular in plan embracing the said sections, means for clamping the plate to the leg sections, girths having their

ends abutting the legs at their junction, and means carried by the plate for holding the girths.

2. In a derrick structure, superimposed leg sections joined together, a member inserted in the said leg sections and spanning the joint between the said leg sections, a plate having its sides at angles to each other, the said plate embracing the leg sections at their junction, U-shaped bolts embracing the said sections and extending through the plate, means for securing the bolts to the plate, girths having their ends abutting the leg sections at their joint, and means for holding the said girths in assembled relation to the plate.

3. In a derrick structure, superimposed leg sections joined together, a member inserted in the said leg sections and spanning the joint between the said leg sections, a plate having its sides at angles to each other, the said plate embracing the leg sections at their junction, U-shaped bolts embracing the said sections and extending through the plate, means for securing the bolts to the plate, girths having their ends abutting the leg sections at their joint, the said plate having apertures for the anchorage of brace-rods, and means for holding the said girths in assembled relation to the plate.

GUY P. SLATER.