

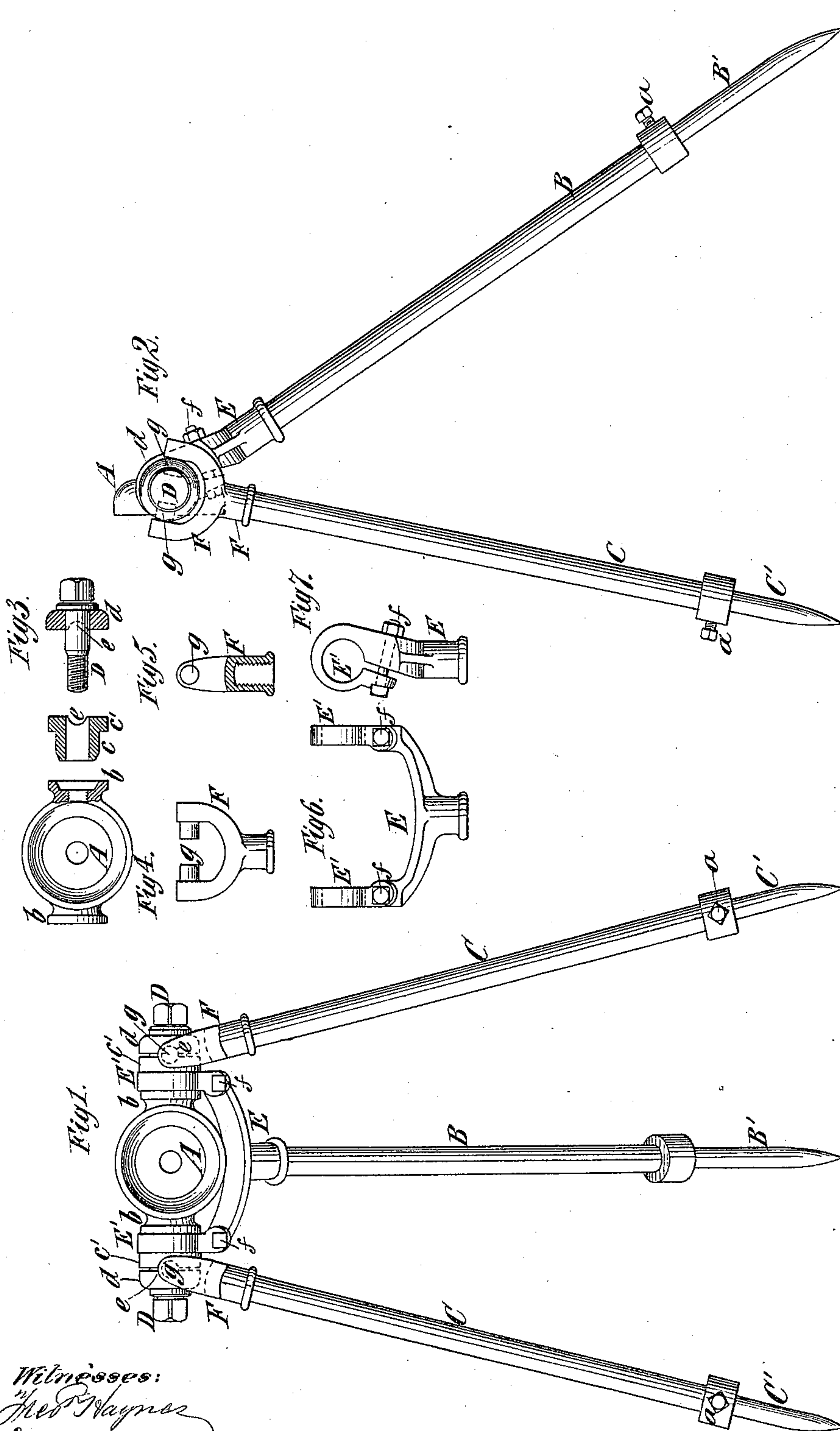
(No Model.)

G. R. CULLINGWORTH.

TRIPOD FOR ROCK DRILLS.

No. 287,103.

Patented Oct. 23, 1883.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## TRIPOD FOR ROCK-DRILLS.

SPECIFICATION forming part of Letters Patent No. 287,103, dated October 23, 1883.

Application filed May 10, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE R. CULLINGWORTH, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Tripods for Rock-Drills, of which the following is a specification.

The tripods which are commonly employed for supporting rock-drills comprise a saddle, to or in which the drill is secured, a rear or back leg, and two side legs, all of which are pivoted to the saddle or to parts connected therewith.

This invention consists in certain novel combinations of devices for the attachment of the side legs and back leg to the saddle, whereby convenience is afforded for the necessary adjustments of the legs and saddle, and provision is made for very firmly securing the parts in position after adjustment.

The invention also consists in novel details in the construction and manner of combining the side legs and saddle, which are hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of a tripod embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a partly-sectional view, showing the saddle and parts forming one of the trunnions detached from the saddle. Figs. 4 and 5 are respectively side and sectional views of the hip of one of the side legs, and Figs. 6 and 7 are respectively front and side views of the yoke of the back leg.

Similar letters of reference designate corresponding parts in all the figures.

A designates the saddle or head of the tripod, which may be of any suitable character adapted to have secured to it a rock-drill of any construction.

B designates the back or rear leg, and C C designate the side legs, all of which are provided with extensible portions B' C' at their lower ends, secured in place by set-screws *a* in the usual way.

The manner in which the trunnions of the saddle A are constructed is best shown in Fig. 3. In each side of the saddle is formed a recessed hub or projection, *b*, here shown as bev-

eled on the interior, and adapted to receive within it the end of a collar or sleeve, *c*, on the outer end of which is formed a flange, *c'*.

D designates the pivot-bolt, which passes through the collar or sleeve *c* and screws into the hub or projection *b* on the saddle A. On the pivot-bolts D, and against the collars *c'*, are fitted washers *d*, and in the faces of each washer and its adjacent flange *c'* are semicircular recesses *e*, which are diametrically opposite each other.

E designates the yoke or fork, which is secured to the top of the back leg, B, and the two ends of which are formed with circular split clamps E', which fit upon the collars or sleeves *c* of the two trunnions, and are clamped thereon with sufficient tightness by bolts *f*. (Most clearly shown in Figs. 6 and 7.) The back leg then can be swung forward and backward, as may be desired, and by adjusting the bolts *f* the frictional resistance to its swinging may be varied as desired.

I do not here make any claim to the construction of the yoke E'.

Upon the upper end of each side leg, C, is secured a hip, F, the construction of which is best shown in Figs. 4 and 5. It consists of a fork of semicircular form and sufficient size to embrace the flange *c'* and the washer *d*, and provided on its opposite inner sides with pivots *g*, which are in line with each other, and are of a size to fit snugly in the holes formed by the semicircular recesses *e* in the adjacent faces of the collar *c'* and washer *d*. The recesses *e* are of such depth that when they are fitted upon the pivots *g* the faces of the flange *c'* and washer *d* will be slightly separated, as shown clearly in Fig. 1, and hence opportunity is afforded for tightening the said recesses upon the pivots by drawing the washer *d* and collar *c* nearer together.

It will be observed that by tightening up the bolts D the washers and collars *c* may be clamped more tightly on the pivots *g*, and the trunnion collars or sleeves *c* may be simultaneously clamped or tightened in their seats *b*. The bolts D are tightened until there is just sufficient frictional resistance opposed to the swinging of the legs.

As before stated, the back leg, B, may be swung backward and forward, as desired, and the side legs, C, may be swung in planes parallel therewith or at right angles thereto. The  
5 collar and washers *c d* turn on the bolts D, to permit the side legs to be swung in planes parallel with the back leg, and the pivots *g* turn in the recesses *e*, to permit the hips F and side legs to be swung in planes transverse to the  
10 plane of swinging of the back leg.

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

1. The combination, with the saddle A and clamping washers or collars concentric with  
15 the trunnions of said saddle, and having corresponding recesses in their adjacent faces, of

the side legs having at the upper ends forked hips which embrace said washers or collars, and have pivots on their inner sides, which are held in the recesses of said washers or collars, 20 substantially as described.

2. The combination of the saddle A, the pivot-bolts D, each having upon it the flanged collar *c* and washer *d*, the back leg, B, and its yoke E, provided with clamps E', fitting the collars 25 *c*, and the side legs, C, and forked hips F, provided with pivots *g*, all substantially as and for the purpose described.

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