(No Model.) 2 Sheets—Sheet 1.

G. ROUNDS.

DERRICK.

No. 350,213. Patented Oct. 5, 1886.

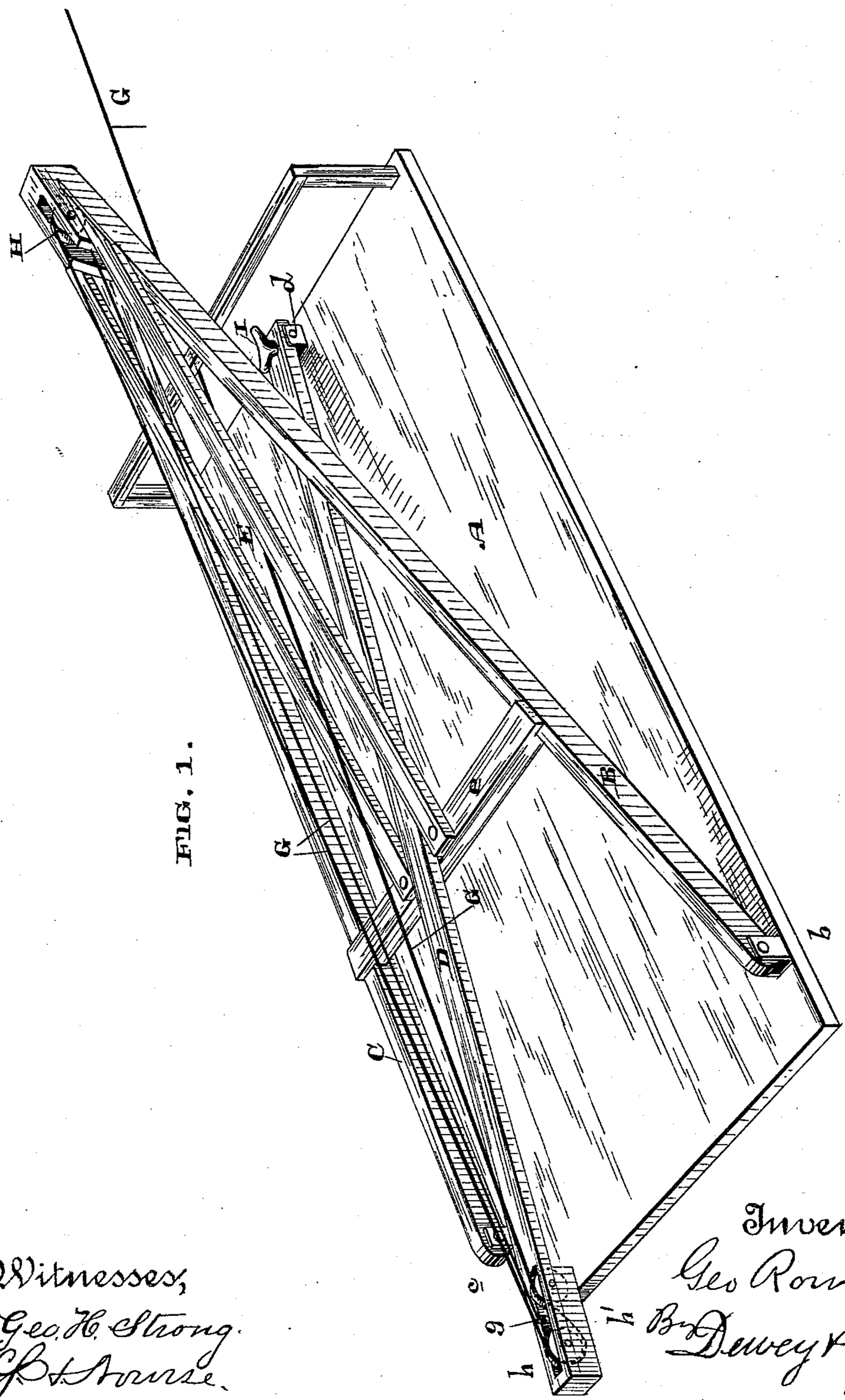

FIG. 1.

Witnesses,
Geo. H. Strong.
J. B. Morse.

Inventor,
Geo Rounds
By Dewey & Co.
attys

(No Model.) 2 Sheets—Sheet 2.

G. ROUNDS.

DERRICK.

No. 350,213. Patented Oct. 5, 1886.

FIG. 3.

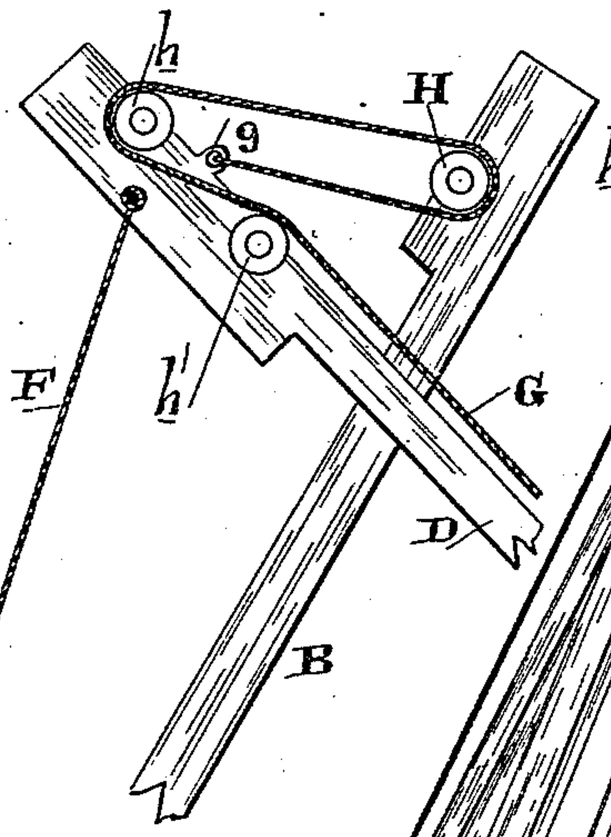

FIG. 2.

Witnesses,
Geo. H. Strong.
J. B. Sourse.

Inventor,
Geo Rounds
By Dewey & Co.
Attys

UNITED STATES PATENT OFFICE.

GEORGE ROUNDS, OF VALLEJO, CALIFORNIA.

DERRICK.

SPECIFICATION forming part of Letters Patent No. 350,213, dated October 5, 1886.

Application filed May 12, 1886. Serial No. 201,994. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ROUNDS, of Vallejo, county of Solano, and State of California, have invented an Improvement in Derricks; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to the class of derricks; and it consists in three legs or standards, two of which are united permanently at their tops and are hinged to the bed or frame at their feet, and the third of which is hinged at its foot and has its top fitted between and guided by the other two, and in a block and-tackle mechanism by which the legs are raised and lowered, and limiting stops for the single leg, all of which I shall hereinafter fully describe.

The object of my invention is to provide a derrick which is simple and cheap in construction, and so arranged that it can be readily raised and lowered with but the exercise of a small amount of power.

Referring to the accompanying drawings, Figure 1 is a view of my derrick, showing it when lowered. Fig. 2 is a perspective view of the same, showing it raised. Fig. 3 is a detail showing the attachment and guidance of the hoisting-rope G.

A is the bed, of any suitable character, such as is usually employed for derricks. B is one of the legs, C is another, and D is the third. The legs B and C converge upwardly and are united at their tops rigidly and permanently, so that said legs practically form a single pair operating together. The lower ends or feet of these legs are hinged at the points *b c*, respectively, to the bed. The leg D is a single one, and has its foot or lower end pivoted or hinged to the bed at the point *d*, which said point is in the extended center plane between the pivot-points of the other legs. The top of the leg D is fitted beween the tops of the legs B and C, and is guided accurately in its movements by the parallel spaced guide-strips E, which are secured to the legs B and C at their tops, and to a cross-bar, *e*, extending between said legs at a point lower down.

F is a cord or rope secured at its upper end to the upper end of the leg D, and at its lower end to the foot of one of the pair of legs B C. This cord limits the upward movement of the single leg, allowing it to be elevated to the proper inclination and there stopping it.

G is the hoisting-rope of the block-and-tackle mechanism. This is secured at one end at the point *g* to the top or head of the single leg D. It thence passes to a block, H, of the legs B C, thence back again to a block, *h*, in the head of the single leg, and down and out past the guide-pulley *h'* in said head, and down to within reach of the power which is to be applied, usually horse-power. A cleat, I, is secured to the foot of the leg D, and to this cleat the hoisting rope is attached so as to hold the legs in an elevated position.

The operation of the derrick is as follows: Supposing it to be in the position shown in Fig. 1—that is to say, lowered and the power is applied to the end of the hoisting-rope G. The first effect of pulling on this rope is to raise the single leg D until limited by the rope or cord F. Continued pulling thereupon raises the pair of legs B C until their head or top bears against and is limited by the head or top of the single leg, when the derrick will be in the position shown in Fig. 2. The rope is then made fast to the cleat and the derrick is ready for use. In lowering the derrick the rope is released, whereby the pair of legs fall first until limited by any frame. The single leg now falls until it rests on the cross-bar *e*. The single leg is, as I have before stated, guided correctly in its movements by the guide-bars or strips E on the pair of legs, and these legs are also guided correctly by their bars slipping over the single leg. Thus all the legs of the derrick work accurately, and by reason of the block-and-tackle mechanism described but very small power is required to elevate them.

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

1. In a derrick, a pair of legs hinged at their feet to the bed and united at their tops, in combination with a single leg pivoted at its foot to the bed, and having its head playing and guided between the pair of legs, and a block-and-tackle mechanism secured to the heads of the legs, whereby the legs are elevated, substantially as described.

2. In a derrick, the pair of legs B C, hinged at their feet to the bed and united at their tops, and the parallel spaced guide-bars E, carried by said pair of legs, in combination with the single leg D, hinged at its base to the

bed, and having its head playing and guided between the bars E of the pair of legs and a block-and-tackle mechanism for lifting said legs, substantially as described.

3. In a derrick, the pair of legs B C, hinged at their feet to the bed and united at their tops, the parallel spaced guide-bars E, carried by said legs, and the cross-bar *e* between the legs, in combination with the single leg D, hinged at its foot to the bed, and having its head playing and guided between the bars and limited by the cross-bar, and block-and-tackle mechanism for elevating said legs, substantially as described.

4. In a derrick, the pair of legs B C, hinged at their feet to the bed and united at their tops, in combination with the single leg D, hinged at its foot to the bed and having its head playing between and guided by the pair of legs, the cord or rope F, by which the upward motion of the single leg is limited, and the block-and-tackle mechanism for elevating the legs, substantially as described.

5. In a derrick, the pair of legs B C, hinged at their feet to the bed and united at their tops, the parallel spaced guide-bars E on said legs, and the cross-bar *e* between them, in combination with the single leg D, hinged at its foot to the bed, and having its head playing and guided between the bars and limited by the cross-bar *e*, the cord or rope F, limiting the upward movement of the single leg, the hoisting-rope G of the tackle mechanism, and the blocks and guide-pulley in the heads of the legs, all arranged and adapted to operate substantially as herein described.

In witness whereof I have hereunto set my hand.

GEORGE ROUNDS.

Witnesses:
S. H. NOURSE,
H. C. LEE.