No. 758,431. PATENTED APR. 26, 1904.

H. EDELINE.

TRESTLE SCREW JACK.

APPLICATION FILED APR. 7, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig: 1

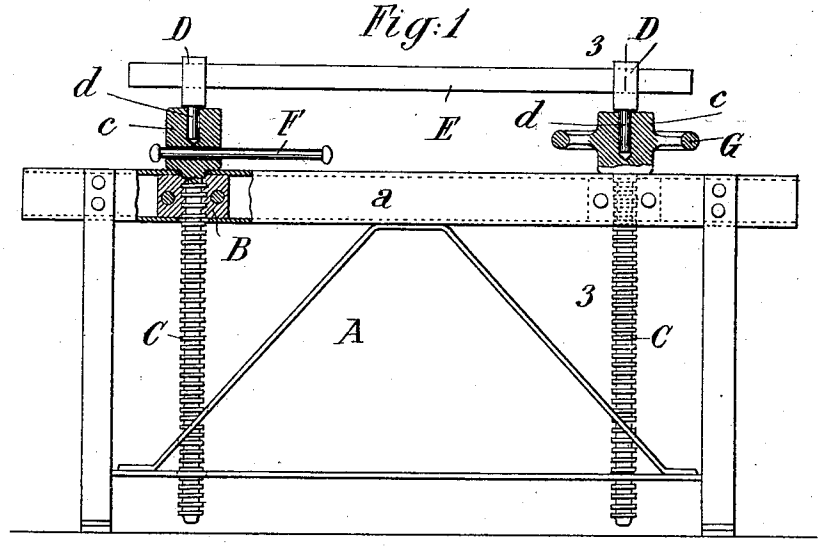


Fig: 2.

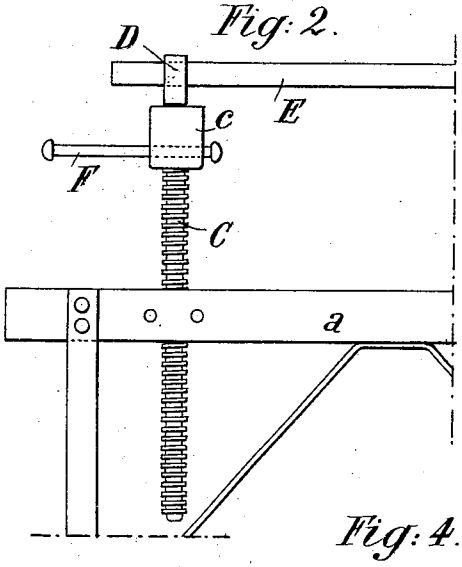


Fig: 3.

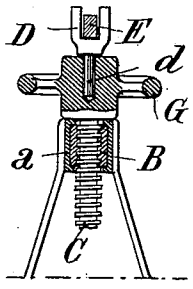
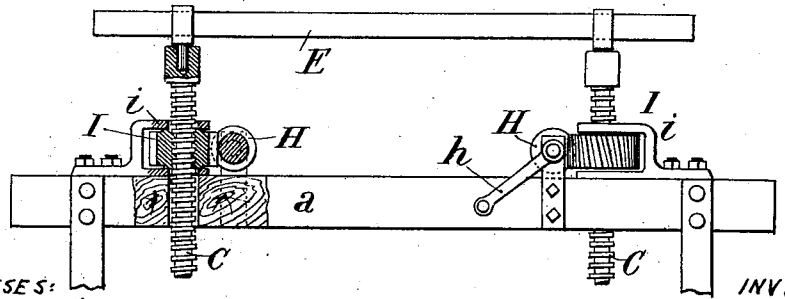


Fig: 4.



WITNESSES:
F. W. Wright
E. W. Collins

INVENTOR
Henri Edeline
BY Howson and Howson
HIS ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 758,431. PATENTED APR. 26, 1904.

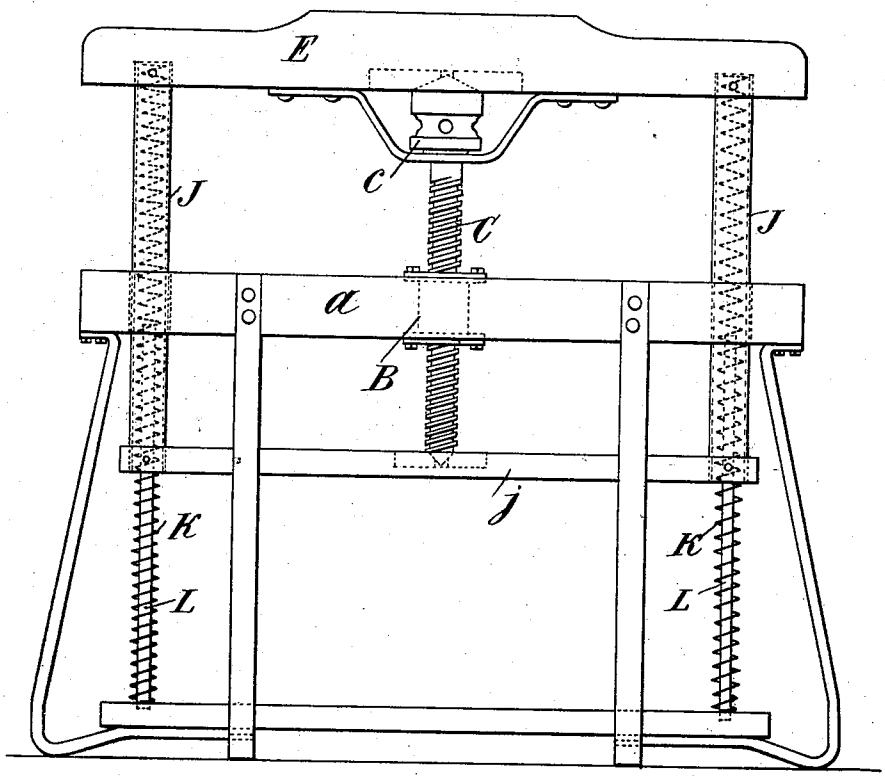
H. EDELINE.

TRESTLE SCREW JACK.

APPLICATION FILED APR. 7, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 5.



WITNESSES:
F. W. Wright
E. W. Collins

INVENTOR
Henri Edeline
BY Howson and Howson
HIS ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 758,431. Patented April 26, 1904.

UNITED STATES PATENT OFFICE.

HENRI EDELINE, OF PARIS, FRANCE.

TRESTLE SCREW-JACK.

SPECIFICATION forming part of Letters Patent No. 758,431, dated April 26, 1904.

Application filed April 7, 1903. Serial No. 151,469. (No model.)

To all whom it may concern:

Be it known that I, HENRI EDELINE, a citizen of the French Republic, residing at 108 Rue de la Réunion, Paris, France, have invented a certain new and useful Trestle Screw-Jack, of which the following is a full, clear, and exact description, and for which I have applied for Letters Patent in France, dated October 28, 1902, No. 325,739; in Germany, dated November 25, 1902, and in Great Britain, dated November 24, 1902.

This invention relates to a trestle screw-jack which can be employed in all cases where it is desired to raise an object not by a single point, as with the common screw-jack, but along a line. It thus dispenses with the use of several screw-jacks or separate lifting-jacks, of which the working and fixing are difficult and the stability uncertain. Moreover, it allows of a more regular distribution of the stresses, because it supports the body to be raised not at one or more points, but along a line. This apparatus can also be so arranged that by the operation necessary to bring it to the lowest position springs are compressed, and these springs upon the working of the apparatus, which often needs to be rapid, restore the energy accumulated beforehand while in a state of rest, which action facilitates the working of the jack.

Referring to the annexed drawings, Figure 1 is an elevation, part section, of a trestle screw-jack according to one form of construction. Fig. 2 is a corresponding view in part elevation, illustrating the machine in its raised position. Fig. 3 is a section on line 3 3 of Fig. 1. Fig. 4 is an elevation, part section, of a trestle screw-jack according to a modification. Fig. 5 shows a trestle screw-jack fitted with storage-springs.

The trestle screw-jack represented by Figs. 1, 2, and 3 comprises a trestle proper, A, which may be either of metal or wood or partly of metal and of wood. In the upper cross-piece *a* are located fixed nuts B, in which are engaged screws C, provided at their upper ends with heads *c*. The latter form sockets, into which enter the pivots *d* of fork-shaped supports D, which sustain a cross-bar E. This cross-bar E is the part which makes contact with and bears under the object to be raised. The screws C may be operated either by means of levers F, passed through the heads *c*, or by means of a hand-wheel G or radial lever-arms. In the trestle shown in Fig. 1 one of the screws C is provided with a lever F and the other is provided with a hand-wheel G. With this machine an object can be raised by supporting it with the whole length of the cross-piece E, which latter can be maintained horizontal or be inclined, if necessary, for this cross-piece simply rests in the fork-supports D. For instance, with two trestle-jacks of this kind a carriage can be completely raised above the ground, which with ordinary jacks would require at least four lifting-jacks, the fixing and operation of which are inconvenient and which do not afford complete stability.

Fig. 4 shows a trestle-jack in a modified form. Here the modification consists in operating the screw C not directly, as in the previous example, but by means of a worm H, which can be rotated by a handle *h*, this worm H engaging and driving a worm-wheel I, which is conveniently held in a support *i* and which forms the nut in which the screw C is engaged.

It must be understood that a trestle screw-jack according to this invention is not strictly limited to the arrangements of construction shown and that these may be modified without changing the essential character of the invention. The trestle proper could be dismountable or jointed, so as to allow of easy carriage of the apparatus. The trestle-jack might be furnished with more than two screws in cases where it had to be of great length or to support great loads. Such a trestle-jack can also be used as a vise. In this case the upper cross-piece E is fast to its supports *c*, and the object to be held is locked between this cross-piece E and the cross-piece *a* of the trestle proper through the medium of any convenient jaws or clamps.

Fig. 5 shows a trestle-jack provided with storage-springs. These springs are placed between the movable cross-piece of the trestle and the frame of the apparatus. The trestle shown is fitted with only one screw; but it could of course have two like the one previ-

ously described. The movable cross-piece E is mounted at the upper end of tubes J, sliding in the upper cross-piece *a* of the frame, these tubes being connected at their lower ends by a cross-bar *j*, which insures the rigidity of the whole. Between the movable cross-bar E and the lower part of the frame of the apparatus are placed springs K, which pass into the tubes J and are guided by rods L, upstanding from the base and extending up to the level of the upper cross-bar *a*. When the cross-bar E is brought to its lowest position, the springs K are compressed, as will be understood.

In using the apparatus for raising any object the force needed at this moment in order to raise the object as promptly as possible is partly provided by the spring J, in which a certain amount of energy has been accumulated beforehand at leisure, and this action facilitates the work of raising.

The trestle shown is of course given by way of example, and the constructional arrangements can be varied without changing the essential characteristics of the invention.

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

1. A trestle screw-jack, comprising a trestle, screws mounted at both ends of the trestle, nuts for the screws, a support carried by each screw which can turn independently of said support, and a cross-bar mounted in said support, substantially as described.

2. A trestle screw-jack, comprising a trestle, screws mounted at both ends, nuts for the screws, a forked support rotatably mounted in the top of each screw and a cross-bar in the forked supports, substantially as described.

3. A trestle screw-jack, comprising a trestle, a cross-bar, screw-and-nut means for raising the bar from the trestle, and springs between the trestle and bar adapted to be compressed upon the lowering of the bar, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRI EDELINE.

Witnesses:

GUSTAVE DUMONT,

J. ALLISON BOWEN.