

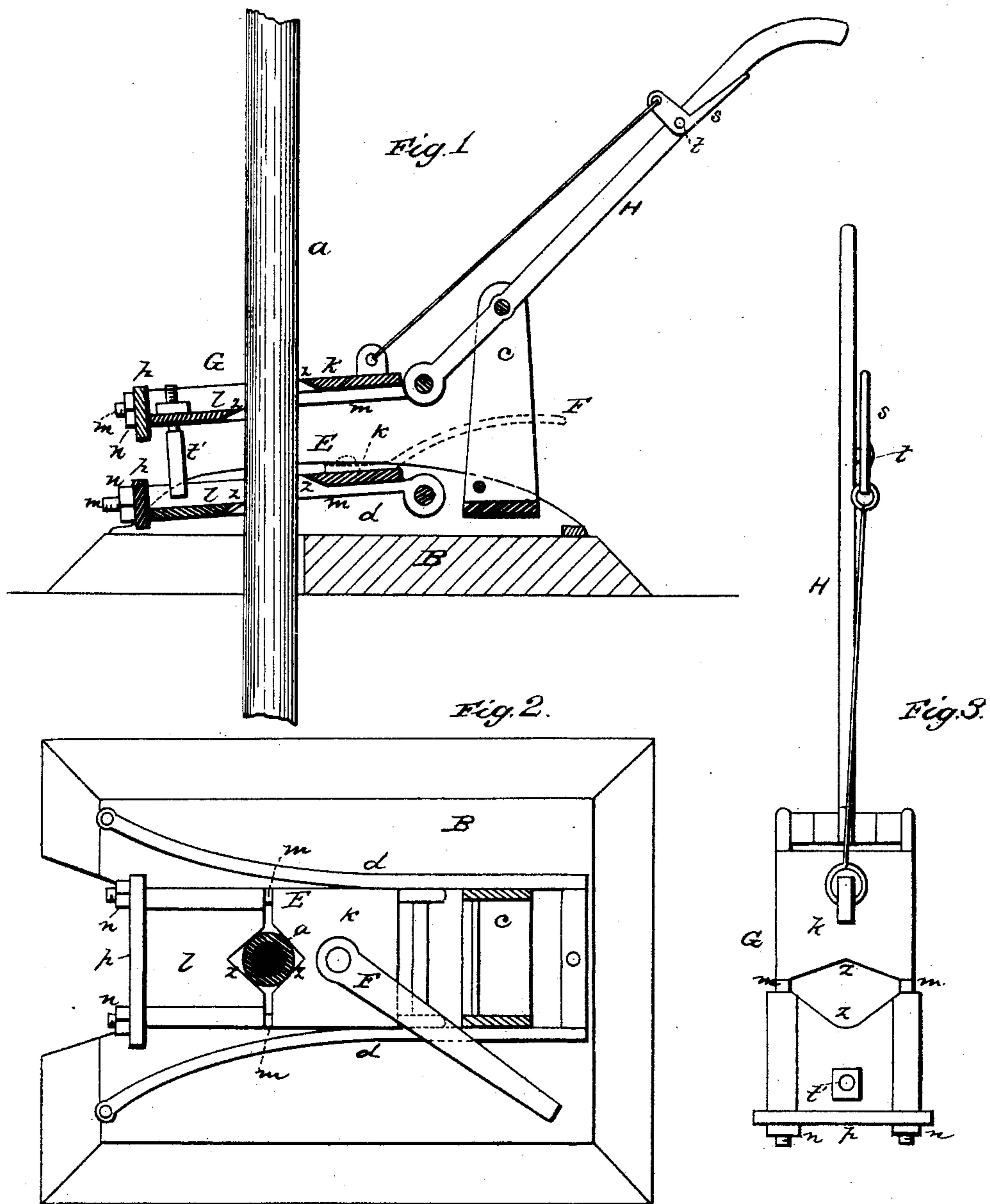
(No Model.)

I. H. PALMER.

DEVICE FOR RAISING AND LOWERING WELL TUBES.

No. 259,581.

Patented June 13, 1882.



WITNESSES
E. H. Bates
Philip C. Massi.

INVENTOR
Isaac H. Palmer,
by Anderson & Smith.
his ATTORNEYS

UNITED STATES PATENT OFFICE.

ISAAC H. PALMER, OF LODI, WISCONSIN.

DEVICE FOR RAISING AND LOWERING WELL-TUBES.

SPECIFICATION forming part of Letters Patent No. 259,581, dated June 13, 1882.

Application filed April 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, ISAAC H. PALMER, a citizen of the United States, resident of Lodi, in the county of Columbia and State of Wisconsin, have invented a new and valuable Improvement in Devices for Raising or Lowering Well-Tubes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical sectional view of my device. Fig. 2 is a horizontal sectional view of the same, and Fig. 3 is a top or plan view of one of the clevises.

This invention has relation to devices for raising or lowering the pipes or tubes of oil or other wells; and it consists in the novel provision of a pair of automatically-biting clevises arranged in connection with pivot-bearings, one above the other, and adapted one to hold the pipe while the other is being adjusted for a new purchase, all as hereinafter set forth.

In the accompanying drawings, the letter *a* designates a well-pipe.

B indicates a frame-work or base at the mouth of the well, or above the same, having two fulcrum-bearings, *c* and *d*, whereof one is arranged at a higher level than the other.

E represents the lower clevis, which is pivoted to the lower fulcrum-bearing, *d*, and is provided with a lever-arm, F.

G indicates the upper clevis, which is pivoted to the end of a lever, H, which is pivoted to the upper fulcrum-bearing, *c*.

The clevises E and G are of similar character, each having an upper biting-jaw, *k*, and an opposite lower biting-jaw, *l*. These jaws *k* and *l* are arranged so as to receive the pipe between them. Being at different levels, sufficient space is allowed between the jaws, when thrown up obliquely, to permit the clevis to pass the collars or connections on the piping. One of the jaws, *l*, of each clevis is made removable, being secured to bearings *m*, which extend on each side, and

between which the pipe is received before the removable jaw is secured in place. It is usually fastened by means of an abutment-plate, *p*, connecting the bearings, and nuts *n*, as indicated in the drawings.

The form of the biting-edges *z* of the jaws may be varied; but a transverse indented angular form is preferable, the chamfered edge being underneath.

An auxiliary lever-connection, *s*, is pivoted to the main lever H of the upper clevis, and is connected to a stud, lug, or projection, *t*, of said clevis. By means of this small lever the clevis can be readily thrown up into oblique position for disengagement when necessary. An adjustable stop, *t'*, extends downward from the upper clevis.

To raise the pipe, after the biting-clevises have been put in position, engaging the same, one below the other, the lever H is put in action, and the upper clevis will at once take a firm hold of the pipe, and as the lever is depressed raise it as high as the stroke of the lever will permit. At the same time the lower clevis will slide freely against the surface of the pipe as it rises, and when the upper clevis is depressed to obtain a new purchase the lower clevis will automatically engage and hold the pipe in the position to which it has been raised by the upper clevis.

When it is desired to lower a pipe the upper clevis should be raised as high as it will grip and hold the pipe, and when firmly engaged therewith it should be elevated a little to disengage the lower clevis. Then by pressing upon the lever of the lower clevis its outer end will be raised and the pipe allowed to descend until the stop on the under side of the upper clevis engages the lower clevis and depresses it to again catch and hold the pipe. Then by means of the lever-connection *s* the upper clevis is disengaged from the pipe, so that it can be raised into position for action again. The upper fulcrum-bearing is usually arranged to have some vibratory play to ease the working.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

A device for raising or lowering pipes in

oil or other wells, consisting of a pair of automatically-biting devices arranged in connection with pivot-bearings, the one above the other, and adapted one to grip and hold
5 the pipe while the other is being adjusted for a new purchase, substantially as specified.

In testimony that I claim the above I have

hereunto subscribed my name in the presence of two witnesses.

ISAAC H. PALMER.

Witnesses:

J. F. COLLINS,
S. H. WATSON.