E. E. SWETT.

MEANS FOR OPERATING SIGNAL-LANTERNS FOR OIL-WELLS.

No. 188,204. Patented March 6, 1877.

Fig. 1.

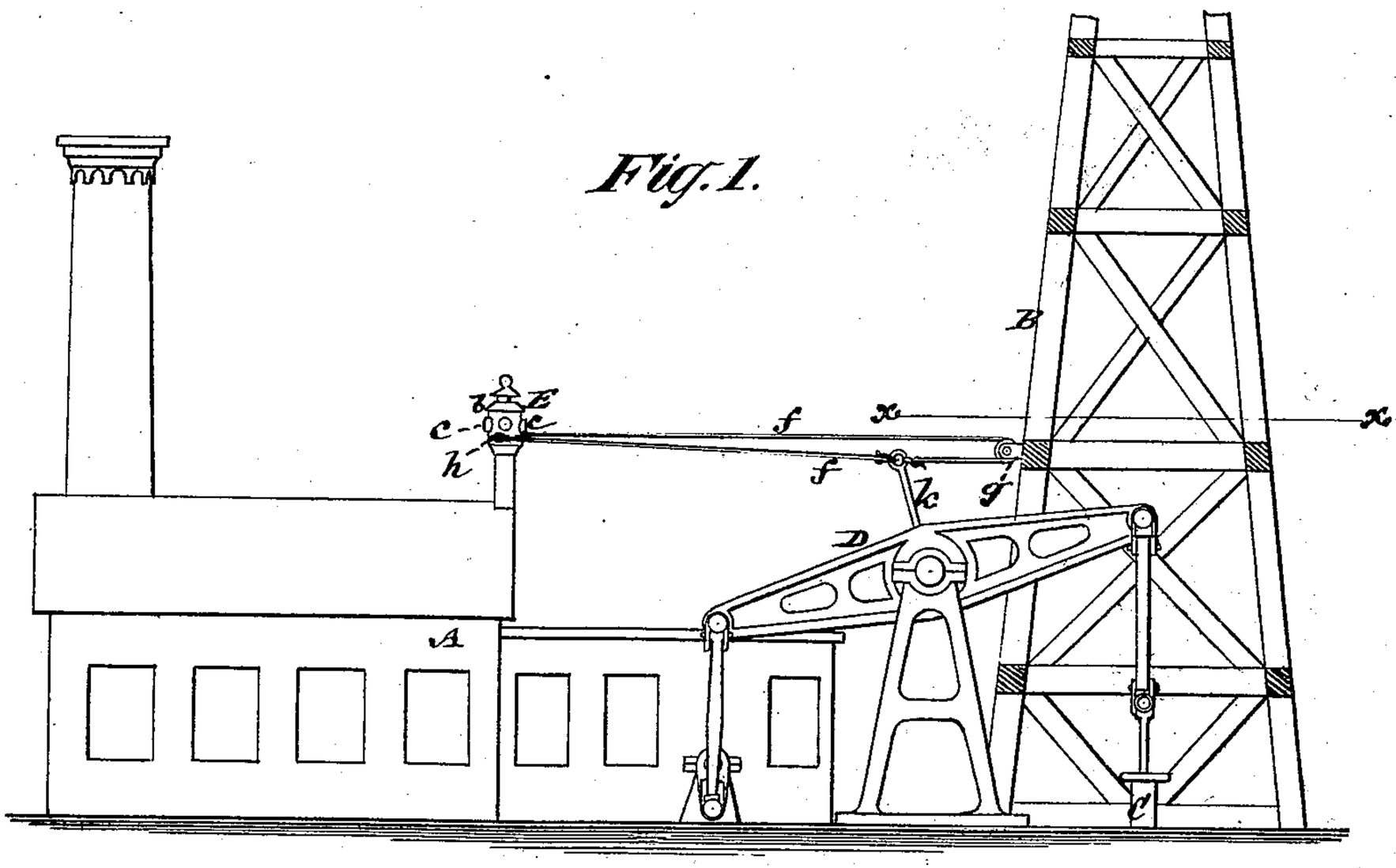


Fig. 2.

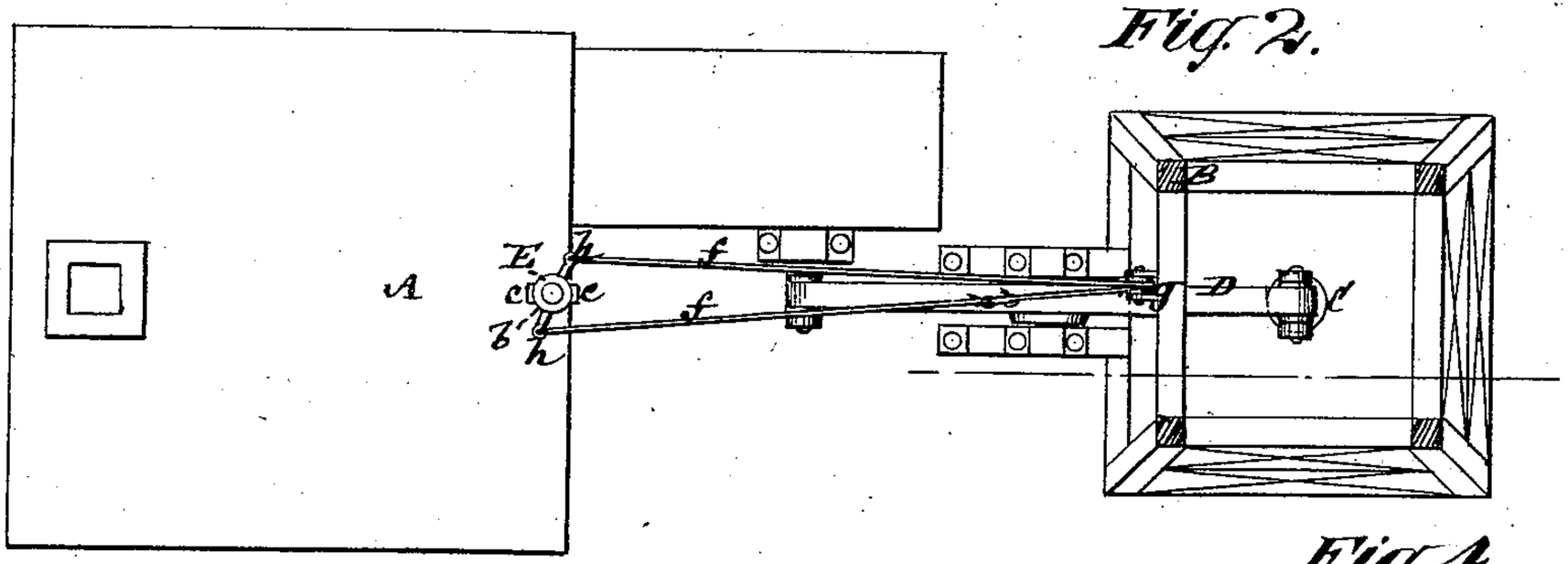


Fig. 4.

Fig. 3.

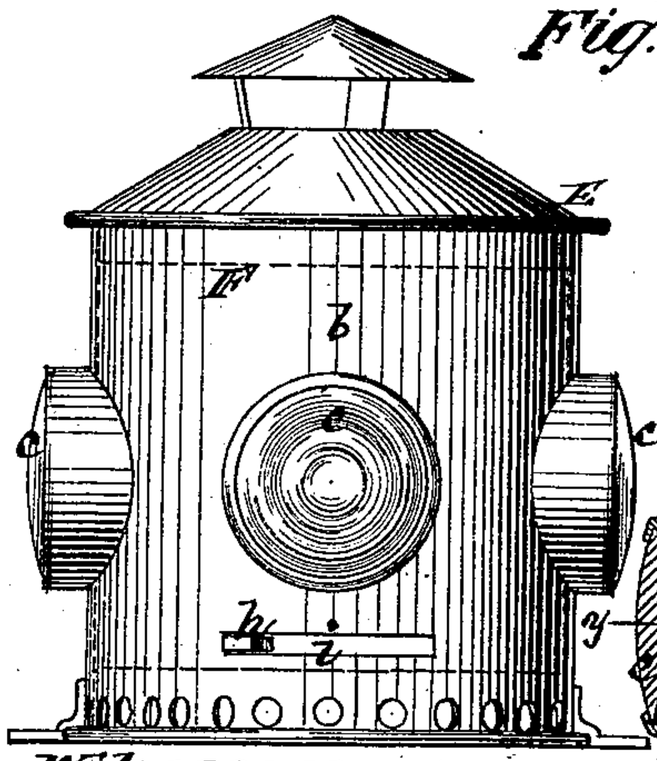
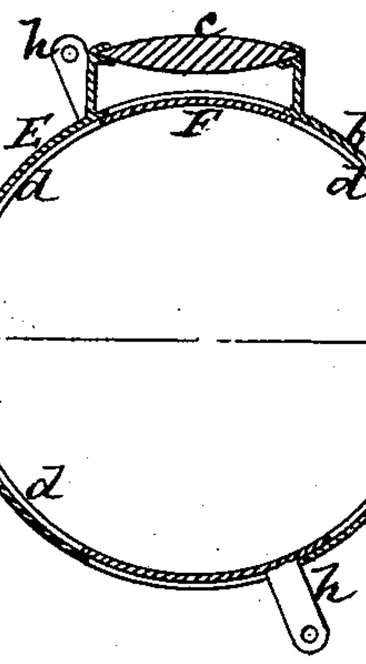
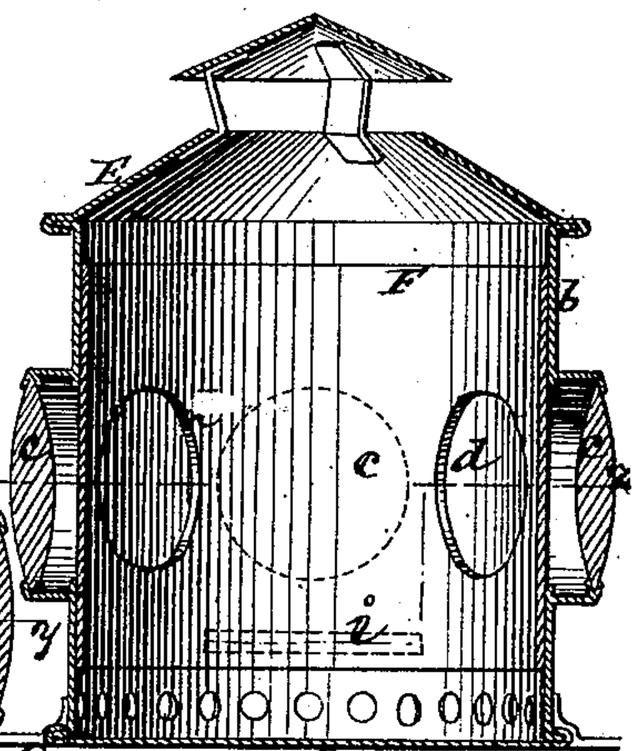


Fig. 5.





Witnesses
John Becker
Fred. Haynes

Edward E. Swett
by his Attorneys
Brown + Allen

UNITED STATES PATENT OFFICE.

EDWARD E. SWETT, OF EDENBURG, (KNOX P. O.,) PENNSYLVANIA.

IMPROVEMENT IN MEANS FOR OPERATING SIGNAL-LANTERNS FOR OIL-WELLS.

Specification forming part of Letters Patent No. **188,204**, dated March 6, 1877; application filed January 17, 1877.

To all whom it may concern:

Be it known that I, EDWARD E. SWETT, of Edenburg, (Knox P. O.,) in the county of Clarion and State of Pennsylvania, have invented a new and useful Improvement in Means of Operating Signal-Lanterns for Oil-Wells; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

The object of this invention is to indicate, at night or at other periods, and at a distance from the place, to the overseer of one or more oil-wells, or to others interested therein, when and with what regularity the work of pumping is being proceeded with. To this end the invention consists in the combination, with the pumping-engine of an oil-well, or with the working-beam or other rocking or reciprocating device operated by said engine, of a signal-lantern and means of imparting to said lantern, or to part of it, from the engine or said beam or device, an oscillating motion, whereby a flashing of the light is produced at regular intervals, corresponding with the working of the engine, thus indicating the regularity or irregularity of the work and the intervals during which pumping ceases.

Figure 1 represents a partly-sectional elevation of an oil-well works, in part, with my invention applied. Fig. 2 is a partly-horizontal section of the same, mainly on the line *x x*. Fig. 3 is a side elevation of the signal-lantern, with a flashing shut-off thrown open or back to expose the light; Fig. 4, a vertical central section thereof on the line *y y;* and Fig. 5, a horizontal section of said lantern on the line *z z*, showing the flashing shut-off as thrown forward or closed to exclude exposure of the light.

A is the engine-house of an oil-well; B, the derrick; C, the pump, and D the working-beam, which operates the pump, and which is driven by the engine at a slower velocity than the latter, said beam generally making only one stroke for every three strokes of the engine. E is a signal-lantern, which may be mounted on the engine-house, or on a post or structure of any kind having a suitable elevation, and arranged to permit of the lantern or a flashing shut-off (with which the lantern may be provided) being operated by the engine or by the beam D, which is driven by the engine. It is preferred, however, to operate said lantern, or part of it, by the working-beam D, and so that a flashing of the light is produced by or during every stroke of said beam; or it might be worked by the pump-pitman, or by any rocking or reciprocating device operated by the engine.

The lantern E may be variously constructed and combined. Thus it may be constructed and combined so that its body or outer shell is revolved or oscillated to flash the light in certain directions through lenses, either of the same or different colors, arranged at suitable distances apart around said body; or the lantern-body may be stationary, and a shut-off be revolved or oscillated to flash the light, which is the construction shown in the drawing, *b* being the stationary body or shell, provided with any number of side lights or lenses *c*, and F being the revolving or oscillating shut-off. This shut-off is in the form of a cylinder, arranged to fit freely but closely the interior of the circular lantern-body *b*, and provided with apertures *d*, corresponding with the lenses *c*, so that when the shut-off F is oscillated to bring its openings *d* opposite or over the lenses *c* the light is flashed through the lenses, and when the dark or closed portions of the shut-off are moved opposite or over the lenses the light is excluded from exposure.

Various means may be employed for operating the lantern or said flashing shut-off by the working-beam D, the pump-pitman, or some reciprocating part of the engine. The following means, however, will be found very successful in practice. Thus a wire-rope, *f*, is passed around a fixed pulley, *g*, and is connected at its ends with radial arms *h*, attached to opposite sides of the shut-off, and passing through slots *i* in the lantern-body *b*. One line or length of this rope *f* is connected with the working-beam D by an arm, *k*, whereby the flashing shut-off F is oscillated with each up-and-down stroke of the working-beam D. In this way the flashing of the light is produced at regular intervals, corresponding with the working of the engine.

I claim—

The combination, with the engine or working-beam, or other rocking or reciprocating device operated by the engine, of a signal-lantern and means of imparting to said lantern, or to part of it, from the engine or said beam or device, an oscillating motion, whereby a flashing of the light is produced at regular intervals, corresponding with the working of the engine, substantially as specified.

EDWARD E. SWETT.

Witnesses:

C. L. COOT,

H. L. SWETT.