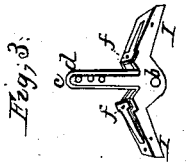
S. Stadon,

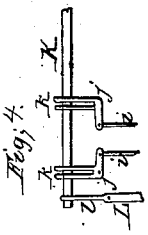
Cattle Pump.

No. 2,031. Patented Apr. 2, 1841.

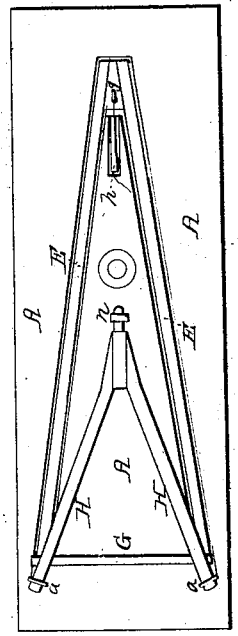
Fig; 3.



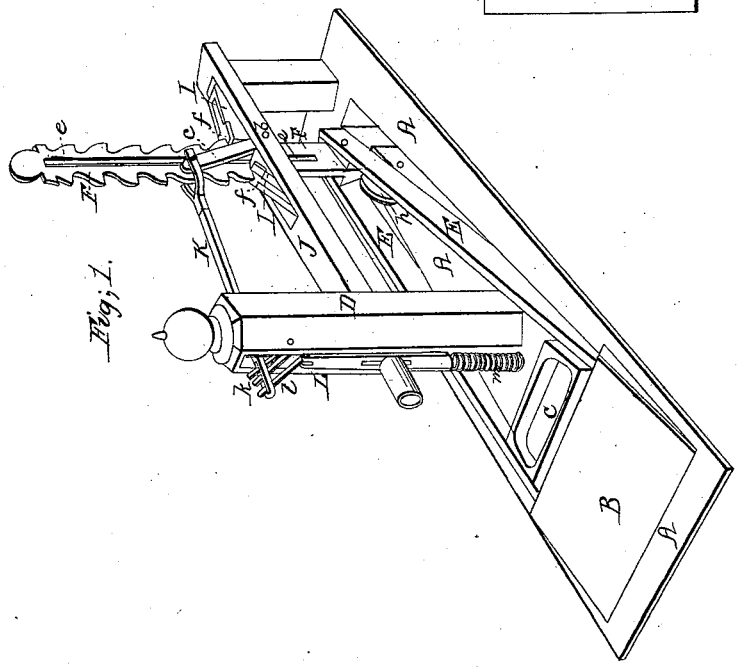
Fig; 4.



Fig; 2.



Fig; 1.



UNITED STATES PATENT OFFICE.

SHIVELY STADON, OF GREENWOOD, PENNSYLVANIA.

CATTLE-PUMP.

Specification of Letters Patent No. 2,031, dated April 2, 1841.

To all whom it may concern:

Be it known that I, SHIVELY STADON, of Greenwood, Columbia county, Pennsylvania, have invented an Improved Cattle-Pump or apparatus by which the weight of cattle is employed to raise water from a well or other reservoir, for their own use; and I do hereby declare that the following is a full and exact description thereof.

In my apparatus the weight of a single animal, or of more than one, is made effective in the raising of water, by their standing upon a movable platform close to which the trough is situated from which they are to drink, said platform being co connected with a pump as that by its depression it shall operate upon the pistons of the pump and, of course, give a supply of water.

In the accompanying drawing Figure 1 is a perspective view of my cattle pump; Fig 2, a view of the underside of the platform thereof, and Figs. 3 and 4 certain parts in detail to be presently described.

A, A, A, is the stationary portion of the platform which sustains B, its movable part, upon which the cattle must stand in approaching the trough C, which trough is to be supplied with water from the pump D. Two side pieces, or arms E, E, are firmly affixed to, and extend from, the platform B, and these are attached at their extreme ends to the vertical ratchet bar F, F. The arms E, E, of the platform B, pass through openings in the stationary platform A, A, as shown in Fig. 2.

G, is a cross bar that connects the lower sides of E, E, and serve as a fulcrum upon which the platform B, is sustained, it having knife edge (not so represented) or other suitable bearings, which rest upon the upper sides of the bifurcated lever H, H; this lever is sustained upon fulcrum bearings at *a*, *a*, its use will presently appear.

The platform B, and the vertical ratchets F, F, are attached to its arms, are shown as elevated, and standing in the position which they occupy where the platform is not forced down by any incumbent weight.

I, I, is a double vibrating pawl which is shown separately in Fig. 3, this double pawl works on a joint pin *b*, in the timber J; and from each of its sides rises an arm *c*, which by the vibration of the pawls gives a reciprocating motion to the rod K, which rod works the pump. The arms *c*, are connected by joint pins *d*, to the forks of the rod K, on each side of the ratchet, and as this descends the alternate notches upon its edges give a rocking motion to the double cam, a notch on one side pressing upon one of the cams, causing the cam on the opposite side to enter the notch next above, while the former escapes down by the descent of its cam, and this consequently causes the rod K, to vibrate. Between the two arms *c*, *c*, and the two pawls, the ratchet F, F, passes down and up. To allow it to ascend without resistance the acting parts *f*, *f*, of the pawls work on joint pins and are raised from their bearings. To cause the ratchet to rise, a cord is attached to the lower side of the arms of the movable platform, as at *g*, Fig. 2, passes over a pulley *h*, and is furnished with a counterweight, sufficient, to produce the intended effect. The pin *b* passes through the slot *e*, *e*, in the double ratchet F, F, and serves to guide it up and down. The pump may be constructed in the ordinary way, but I prefer to make it in the manner of that called Nobles pump, which has two pistons, one of which rises as the other is depressed. The two piston rods are shown at *i*, *i*, Fig. 4, attached to two kneed levers *j*, *j*. If a single piston is used there will be one such lever only. The levers *j*, *j*, are represented as having slots in them at *k*, *k*, which admit the pins on the rod K, to enter these slots, and vibrate the levers; these pins rise and fall so as to operate upon different points of the levers. When the weight is increased upon the platform B, these pins are forced down, and the stroke of the pistons will be thereby lengthened, and the quantity of water pumped up will be augmented. The device by which this depression of the rod K, is effected, is as follows. L is a vertical sliding rod, which is attached to K, by a connecting piece *l*, working on joint pins. The rod L, is forced up by the spiral spring *m*, and it passes down through the stationary platform, under which it is attached at *n*, to the lever H, H. When there is a greater weight than usual upon the platform B, as this platform has its bearing, or fulcrum on H, H, by means of the cross piece G, the lever H will be depressed, the reaction of the spiral spring *m*, being overcome, and the rod K, will descend in a degree proportional to the weight upon the platform B.

Having thus fully described the nature of my invention, and shown the operation of

the respective parts of my machine, what I claim therein, and desire to secure by Letters Patent, is—

1. The manner in which I have arranged and combined the movable platform, the vertical ratchet, and the pawls, so as to give a reciprocating motion to the rod K, as set forth, by means of the weight of cattle standing upon said movable platform.

2. I also claim the combination of parts by which the stroke of the piston, or pistons, is augmented, by any additional weight upon the movable platform; that is to say, I claim the causing of said platform to operate upon the sliding rod L, and the reciprocating rod K, substantially in the manner, and for the purpose described. Not intending, however, by said description to limit myself to the special form and arrangement herein designated, but to vary these in such way as I may find expedient while the same effects are produced by analogous or equivalent means.

SHIVELY STADON.

Witnesses:
THOS. P. JONES,
GEORGE WEST.