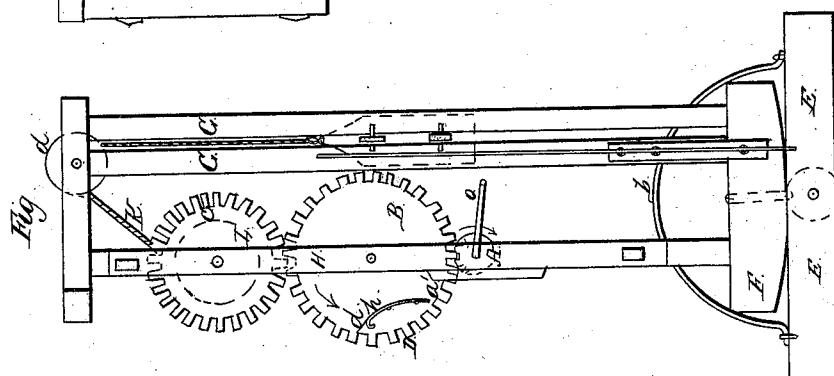
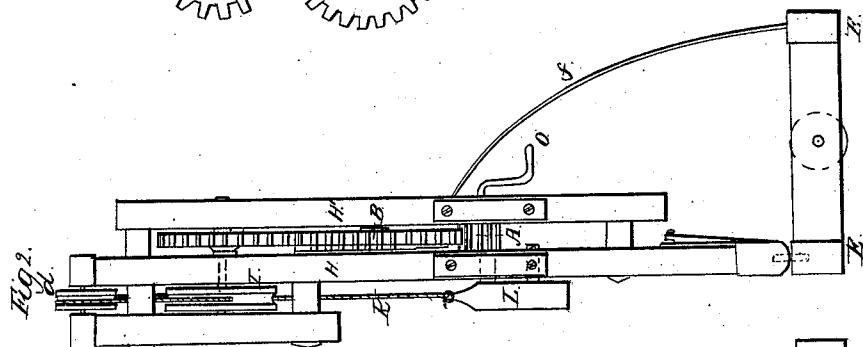
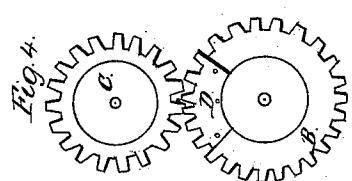
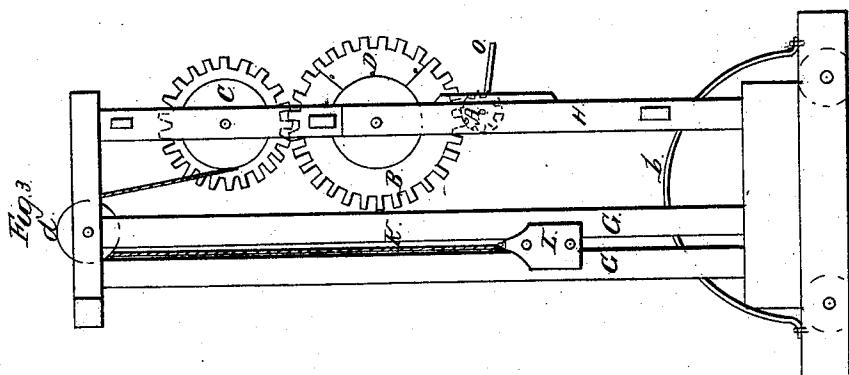


J. M. Sampson.

Pile Driver.

No 14,520.

Patented Mar. 25, 1856.



UNITED STATES PATENT OFFICE.

JUNIUS M. SAMPSON, OF WAYNESVILLE, ILLINOIS.

POST-DRIVER.

Specification of Letters Patent No. 14,520, dated March 25, 1856.

To all whom it may concern:

Be it known that I, JUNIUS M. SAMPSON, of Waynesville, in the county of DeWitt and State of Illinois, have invented certain 5 new and useful Improvements in Machines for Driving Posts, &c.; and I do hereby declare that the following is a clear and exact description of the same, reference being had to the accompanying drawings, making a 10 part of this specification.

The nature of my improvement consists in so arranging and constructing the gearing that actuates the windlass that by means of the wheel B having a portion of its cogs 15 removed being placed by the side of wheel D and upon the same axis in connection with the pinion or wind wheel A I am enabled to effect the liberation of the second wheel C, and allow the descent of the same, 20 in the manner hereinafter described.

In the drawings E E represent a frame or base carriage on which the machine rests, the wheels under the same affording facility of transportation.

25 F is a sill piece having its under side rounded, to allow of change of position in adapting the machine to the irregularities of the surface and to keep the uprights G G in a vertical position.

30 H is an upright frame in the sill and H' a similar timber placed by the side of H. Between them is the pinion A whose axis is furnished with a suitable winch or handle. B, a wheel above the pinion, which instead 35 of being a continuous wheel, has a portion of its cogs removed say from a to a' the object of which will be explained hereafter. Upon the side of B at the portion of cogs removed I place a portion of the periphery 40 of a wheel, D, having cogs and diameter the same as B, for the purpose of forming a continuous wheel so far as its meshing into the cogs of the broad pinion A is concerned.

45 C, is a third wheel above B furnished with cogs on its entire periphery.

I, is a drum secured on the same shaft and turning with C; K a rope or chain with one end secured in the drum, it passes over the pulley d, as the top of the frame work, 50 and suspends a heavy weight or ram L from the other end.

(b) is a strong arc, of metal with a set

screw by which the uprights may be retained in position; and (f) is a similar arc at right angles to (b) for a similar purpose. 55

By the removal of a portion of the cogs of wheel B, when in its revolution the portion a a' thereof is brought in the position seen in Fig. 4, the mesh or connection of the cogs is broken up, and as a consequence 60 the wheel C will be at liberty to revolve by the unwinding of the rope from the draw I. To prevent the cogs of B from clashing or failing to mesh with wheel C, in drawing up the ram, I have placed a catch (h) 65 on the periphery at the removed portion, whose office is to catch one of the teeth or cogs of wheel C, and draw the wheel properly around, that the cogs of both wheels may mesh.

70 The explanation of the mode of using this improvement is as follows: Having been properly adjusted to bring the face of the weight or ram perpendicular or nearly so (the ram weighing about 200 lbs.) a hand 75 lays hold on the winch (o) and turns it in the direction of the dart, and actuates the gear, winding the rope or chain, with a single turn on the drum I; this drum should be of the same circumference as the length of 80 the desired stroke, that is if for a four foot stroke a sixteen inch diameter of drum will be required. The rope having been wound and the weight raised, the moment the wheel B clears the cogs of C, it permits it to 85 turn in an opposite direction and the weight faces upon a post placed in position to receive the stroke; the cogs soon being brought in play again the weight is raised and the stroke repeated as often as necessary. 90 By this simple machine with a hand to turn and another to set the posts I have driven from three to four hundred posts per day for fencing, and in a superior manner to the usual mode of boring the earth 95 setting the posts and ramming the earth around it.

The importance of this invention will be appreciated in our western lands where timber fences are chiefly used and the character of the soil prevents the solid setting of the posts by ordinary means.

100 Having described my improvement in machinery for driving posts &c what I

claim as my invention and desire to secure by Letters Patent is,

The segmental wheel B constructed as described in combination with pinion A and wheel C, operating the drum I upon the shaft of C, substantially in the manner and for the purposes set forth.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

J. M. SAMPSON.

Witnesses:

W. S. CLARK,
JOHN F. CLARK.