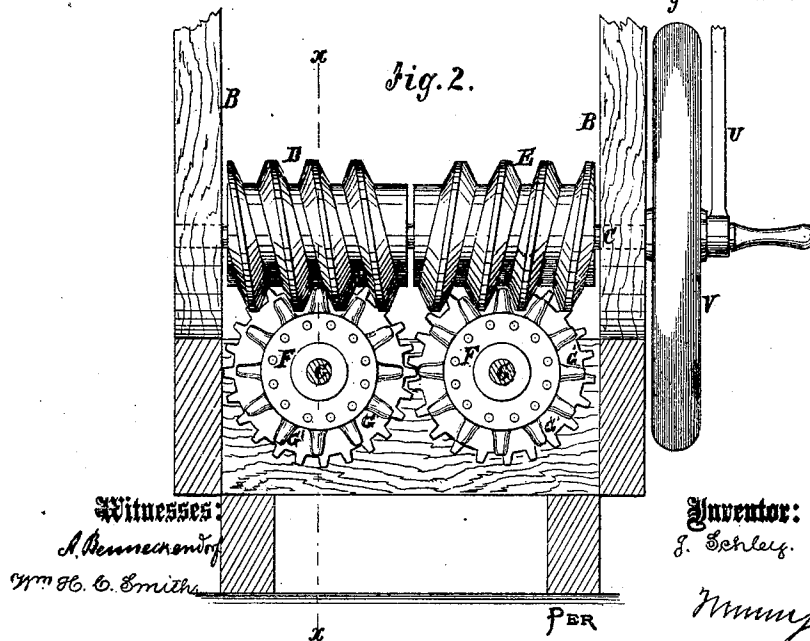
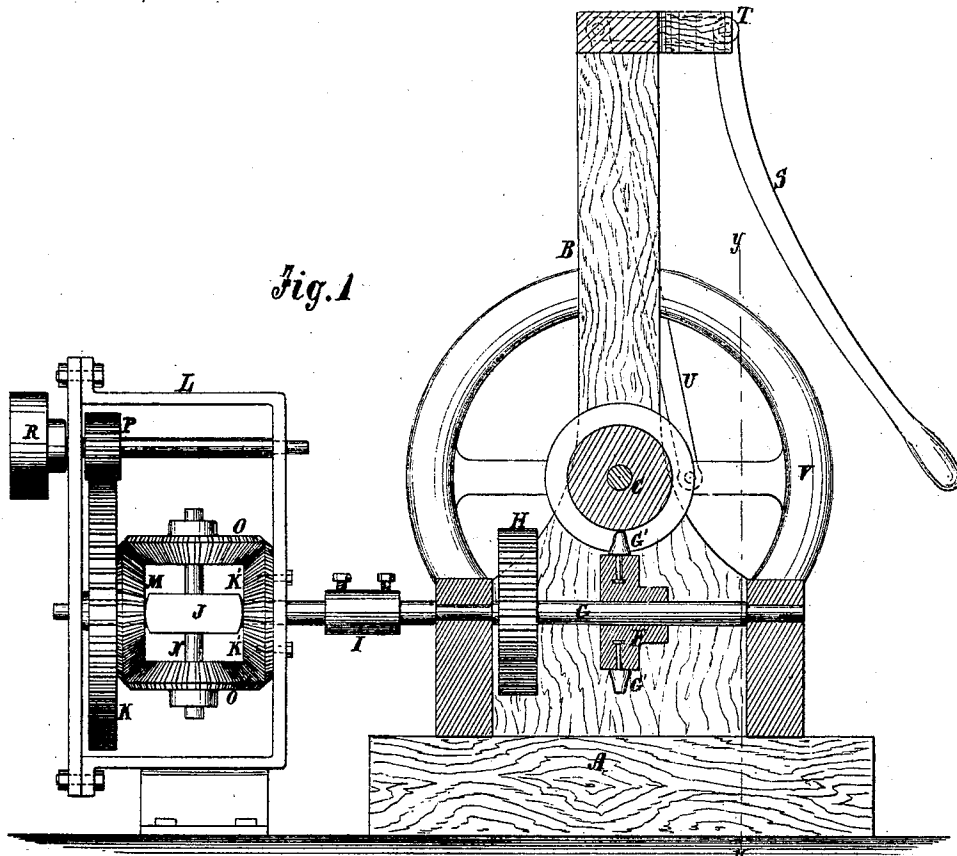


J. SCHLEY.

Improvement in Modes of Applying Motive-Power.

No. 114,866.

Patented May 16, 1871.



United States Patent Office.

JOHN SCHLEY, OF SAVANNAH, GEORGIA.

Letters Patent No. 114,866, dated May 16, 1871.

IMPROVEMENT IN MODES OF APPLYING MOTIVE POWER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN SCHLEY, of Savannah, in the county of Chatham and State of Georgia, have invented a new and useful Improvement in the Application of Motive Power; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention has reference to a new mode of applying motive power to a horse-power or to any mechanical arrangement of wheels or pulleys for multiplying motion, and consists in the use of a right and a left-hand screw engaging with pinion-wheels on shafts which are geared together, the same being made to operate in combination with a system of gear-wheels for multiplying the motion, as will be hereinafter more fully described.

In the accompanying drawing—

Figure 1 represents a sectional side view of the apparatus, the section being taken on the line *x x*, fig. 2.

Figure 2 is a vertical section of fig. 1 taken on the line *y y*.

Similar letters of reference indicate corresponding parts.

A is the bed-plate on which the apparatus is supported.

B represents a vertical frame, in the uprights of which the driving-shaft C revolves.

D is a right and E a left-hand screw on the driving-shaft.

F F are pinion-wheels on shafts G G, placed at right angles with the driving-shaft.

The cogs G' of these pinions are cones, and revolve on centers so as to diminish the friction on the threads of the right-and-left-hand screws. In fig. 1 one of the pinions F is seen in section.

On each of the pinion-shafts there is a spur-wheel, H, which wheels mesh together and impart motion to the connecting-shaft I.

The shaft I is attached to the shaft J of the wheel K. It passes through the stationary bevel-wheel K'.

This shaft has its bearings in the frame L.

The wheel K is a spur-wheel.

M is a bevel-wheel attached to J.

N is an arbor which passes through the shaft J and is fast therein.

O O are bevel-wheels, which revolve on the arbor N, and also carried round by the shaft J, and meshing with the bevel-wheels K' and M.

P is a pinion, with which the spur-wheel H engages.

R is a pulley on the pinion-shaft from which motion is conveyed for driving machinery by means of a belt.

The speed lost by means of the perpetual-screw motion is regained and multiplied by the spur-wheel and pinion.

S is a bent lever, having its fulcrum at T connected with the crank-pin of the fly-wheel by the rod U.

The screws may be revolved by means of this lever, if desired, when hand-power is used.

Any motive power may be employed for this purpose.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The arrangement of the right-and-left-hand screws D E, pinions F F, and wheels H H for conveying power and motion, substantially as described.

2. The revolving cog G', in combination with a perpetual-screw gear, substantially as and for the purposes described.

3. In combination with the screws D E and wheels F F, the system of gearing represented by the bevel-wheels K' M and O O, and spur-wheel and pinion K P, when the same are arranged to operate substantially as and for the purposes described.

JOHN SCHLEY.

Witnesses:

GEO. W. MABEE,

ALEX. F. ROBERTS.