

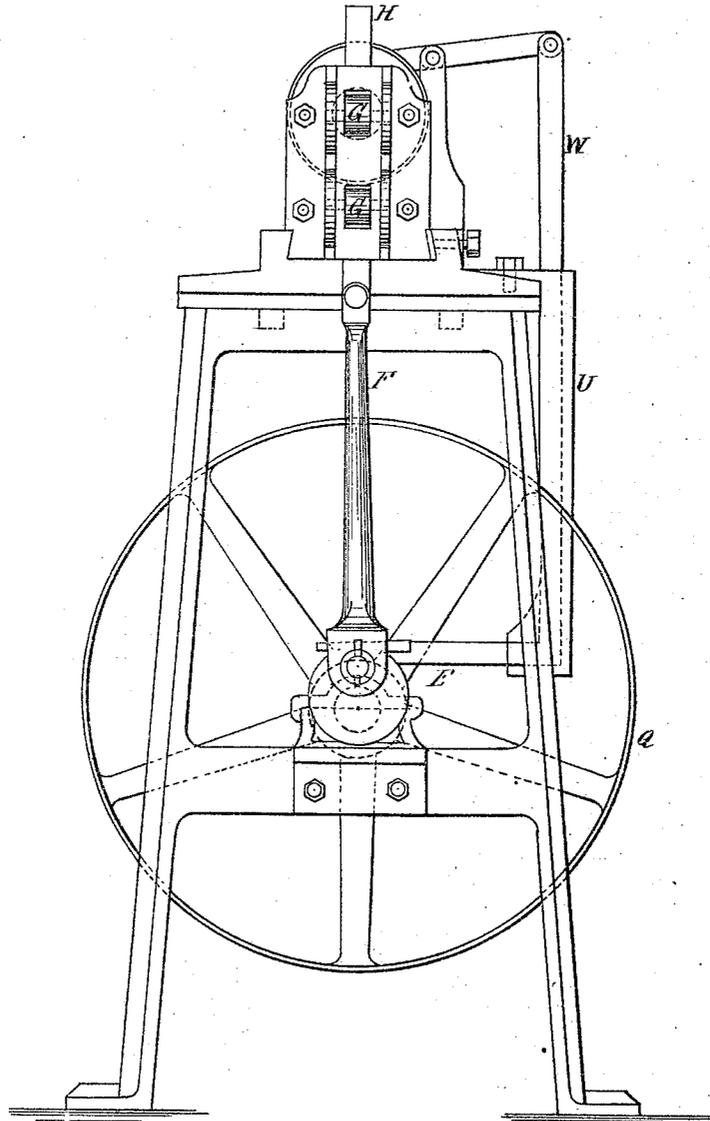
E. H. LACY & P. LYON.

Improvement in Machines for Riveting Hinges.

No. 122,837.

Patented Jan. 16, 1872.

Fig. 2.



Witnesses.

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EDWARD H. LACY AND PLATT LYON, OF WEST TROY, NEW YORK, ASSIGNORS TO ROY & CO., OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR RIVETING HINGES.

Specification forming part of Letters Patent No. 122,837, dated January 16, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that we, EDWARD H. LACY and PLATT LYON, of the village of West Troy, in the county of Albany and State of New York, have invented a new and useful Improvement in Machines for Riveting Butts and Hinges; and we 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 drawing making a part of this specification, in which—

Figure 1 is a side elevation; and Fig. 2 is an end elevation.

A is an iron frame. B C D are shafts. E is a crank. F is a connecting-rod. G G are rollers. H is a wedge. I is a wearing piece. J is a spiral spring. K is a rest. L L are chucks. M N are burs. O P Q are pulleys. R R are standards. S S are set-screws. T is a spring. U is a guide. V is a clamp. W is a clamp-lever; and X is a cam. The top of the frame A has raised edges or lips at the sides. Between these the movable standards R R and the rest K are fastened, at such distance from each other as may be desired, by means of the set-screws S. The shafts B C D are propelled by means of belts running upon pulleys O P Q, and connecting with the power used to propel the machinery. The small shafts C D are propelled in opposite directions to each other. The chucks L L are intended to hold the burs M N in place. The burs M N are constructed with teeth filed in them, which teeth should be set in a direction opposite to the direction in which the shafts to which they are attached revolve; or they may be constructed with a small wheel set in the end having a grooved surface, thereby increasing the wearing surface of the bur. The rollers G G support one side of the wedge H and lessen the friction and wear of the machinery. The wedge H is connected with the crank E by the connecting-rod F, and is propelled upward and downward in its socket by the revolution of the crank E. The wearing piece I is movable and is kept from turning in its socket by a feather or strip of iron upon one side of it that is fitted into a groove in the socket. The shaft

D is movable in the sockets of the standards R, and is kept in place by the wearing piece I and the spiral spring J. The rest K is attached to the frame at a point equidistant from the standard R R by means of the set-screw S. The spring T supports the end of the shaft C, and by its action presses the bur against the rivet by a gradually-lessening pressure as the shafts C and D are parting after the rivet is formed, thereby polishing the rivet. The cam X, as it passes upward in the revolution of the shaft B presses upon and raises the clamp-lever W, which is held in the guide U, and is attached to the clamp V by a hinge, and which clamp V is attached to the rest K by another hinge. The rivet is cut of the requisite length and placed within the butt or hinge ready for riveting; it is then placed by the machinist in the rest K, as represented in Fig. 1. The downward revolution of the crank E draws the wedge H downward, the increased breadth of the wedge as it moves downward, pressing upon the end of the wearing piece I, which thereby presses against the end of the shaft D, the spiral spring J yielding to such pressure until the rivet is held between the burs M N, the counter-revolutions of which, together with the pressure of the clamp V, which is, at the same time, pressed down upon the butt or hinge by the action of the cam X upon the clamp-lever W, hold the rivet in place, and the pressure and action of the teeth or grooves of the burs M N rivet the butt or hinge firmly and perfectly. The upward movement of the crank E presses the wedge H back when the wearing piece I, being relieved of the pressure caused by its downward movement, is, with the shaft D, thrown back by the action of the spiral spring J, the pressure of the clamp V being, at the same time, removed by reason of the weight of the clamp-lever W, which is at the time relieved from the action of the cam X, thereby releasing the butt or hinge. The distance between the standards R R may be lessened or increased by means of the set-screws S S, thereby adapting the machine to different sizes of butts or hinges.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a hinge-riveting machine the wedge H, friction-rollers G, crank E, pitman F, and shaft B, in combination with the reciprocating-shaft D, spring J, and bur N, substantially as and for the purpose specified.

2. The combination of the adjustable standard R, set-screws S, stationary shaft C, ellip-

tical spring T, bur M, and pulley O, substantially as and for the purpose specified.

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Witnesses:

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