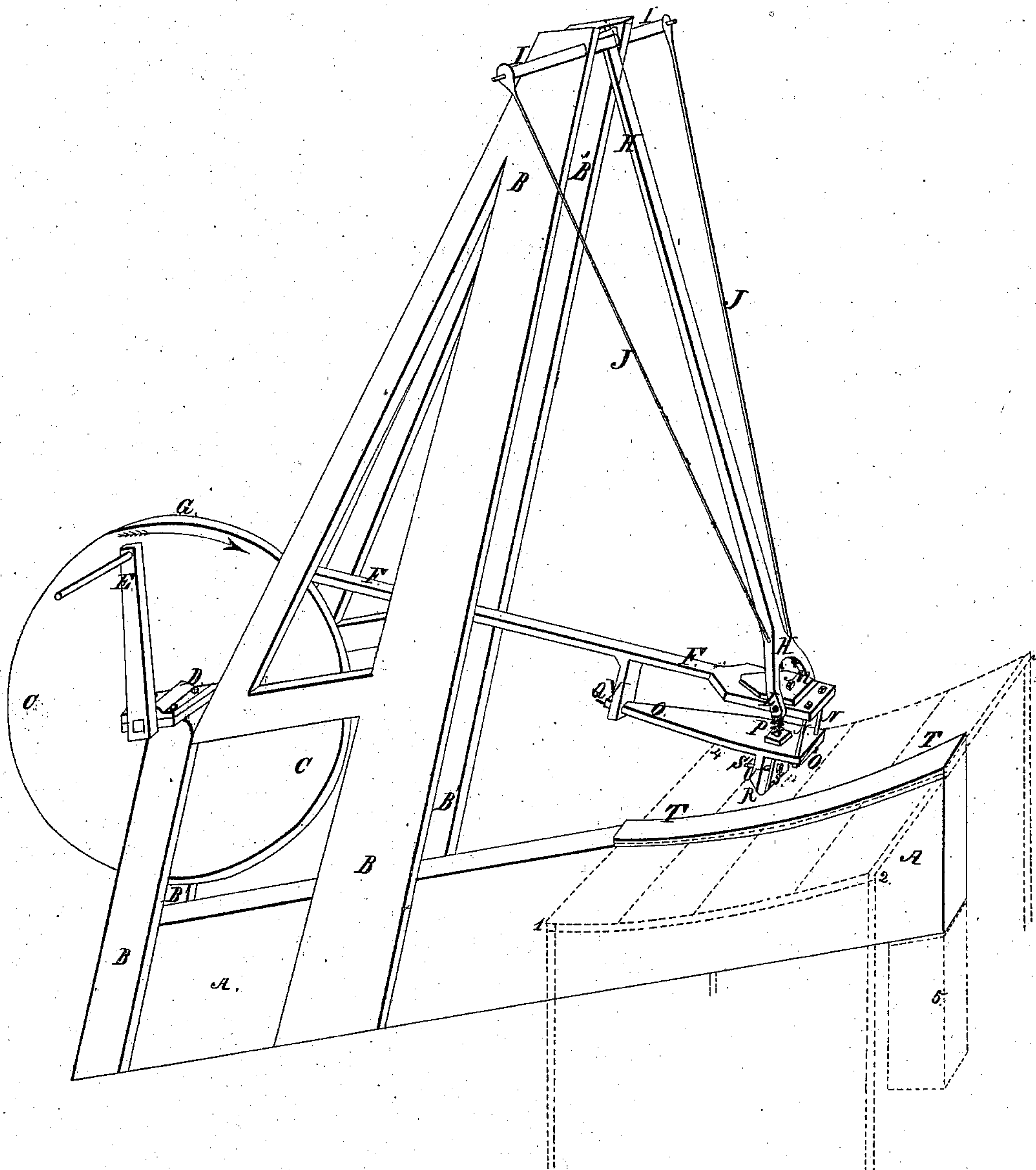


N. Ames,

*Dressing Leather,*

Nº 12,806,

*Patented May 1, 1855.*





# UNITED STATES PATENT OFFICE.

NATHAN AMES, OF SAUGUS, MASSACHUSETTS, ASSIGNOR TO SAMUEL GREEN, OF LYNN, MASSACHUSETTS.

## MACHINE FOR POLISHING LEATHER AND MOROCCO.

Specification of Letters Patent No. 12,806, dated May 1, 1855.

*To all whom it may concern:*

Be it known that I, NATHAN AMES, of Saugus, in the county of Essex and Commonwealth of Massachusetts, have invented  
5 a new and useful Machine for Polishing and Figuring Morocco, of which the following is a full and exact description, reference being had to the accompanying drawing, letters, and figures.

10 The figure is a perspective view of the machine, being drawn on a scale of about two inches to a foot.

A A, and B, B, B, B' B' B', represent the frame, cast in one solid piece of iron.

15 5 is a wooden block.

C, C, is a heavy cast-iron fly-wheel, the axle of which, being fast in the wheel, turns in the box, D.

20 E is a crank by which the machine may be operated by hand. Or in place of, E, a pulley may be used for operating the machine by power.

25 H, H, is a cast-iron arm, swinging freely on the center of the shaft, I, I, to which it is keyed at K, and kept from any lateral motion by the braces, J, J, or by having a wide bearing on the shaft.

30 F, F, is a cast-iron arm, one end of it turning on the pin, G, in the wheel C, C; the other end resting on the pin, L.

M, is a cap, bolted to F, F, the pin, L, passing between the two.

35 O, O, is a piece of cast-iron, to the lower part of which, (U), the polishing or figuring tool, R, is fastened, in various ways, (or as represented in the figure, by the clamp S, and the bolt, S, S', screwed into U.)

40 V, is a projection of the arm, F, F, through which, at its lower extremity, a hole is made so large as to admit of the bolt, Q, playing a little, as the ball, R, rises or falls. A nut is screwed on the end of Q, bearing against, V.

45 P, is a coil spring, its upper end bearing against the underside of F, F, while its lower end rests on a broad nut screwed on a bolt, fast in, O, O, and passing up through the center of the spring nearly to F, F. By means of this nut is applied more or less  
50 power.

N, N, are bolts passing freely through F, F, and screwed into O, O. The object of these bolts, is to raise or lower the ball, at pleasure.

T, T, is an ellipsoidal table, conforming 55 exactly to the orbit described by the ball, R, in the lower half of its revolution.

1, 2, 3, 4, represent a wooden extension of the table, T, T, on which the skin is laid and moved along. 60

It is obvious that the machine may be driven either by a pulley and belt, or by a person turning the crank, E. Or as the machine moves with but little friction, it may be driven by the person who holds the skin, 65 he moving the skin along with one hand, and pushing the lower end of, H, H, with the other.

By turning the wheel in the direction indicated by the arrow, it will be seen that in 70 one half of its revolution, the ball, R, will be raised up from the table, T, T, as represented in the figure; while in the other half, R will pass as near to the table as may be desired without touching it. So far as the 75 motion and raising of the ball, are concerned, it is the same as though the piece, to which the ball, R, is fastened, were a fixed part of the arm, F, F. Hence it is plain that the ball will be raised in its backward 80 motion, without joint, force, friction or noise.

The machine moves as easily and silently as a wheel revolves on its axle, and as rapidly as may be desired. 85

Any of the balls for figuring and polishing, in common use, are also used in this machine.

What I claim as my invention, and desire 90 to secure by Letters Patent, is:—

The above described method of raising the figuring or polishing tool, R, while passing back over the table, T, T;—i. e. by making the tool-holding hand, in effect, a fixed part of the connecting arm, F, F, constructed and combined substantially as described, 95 so that the machine, partaking of the nature both of a reciprocal and rotary motion, may operate, without joint, noise, or friction, as easily and silently as a wheel revolving on 100 its axle, and as rapidly as may be desired; and at the same time, moving in a uniform ellipsoidal orbit over the table, without touching it.

NATHAN AMES.

In presence of—

ABNER C. GOODELL,  
ELLIOTT C. PIERCE.