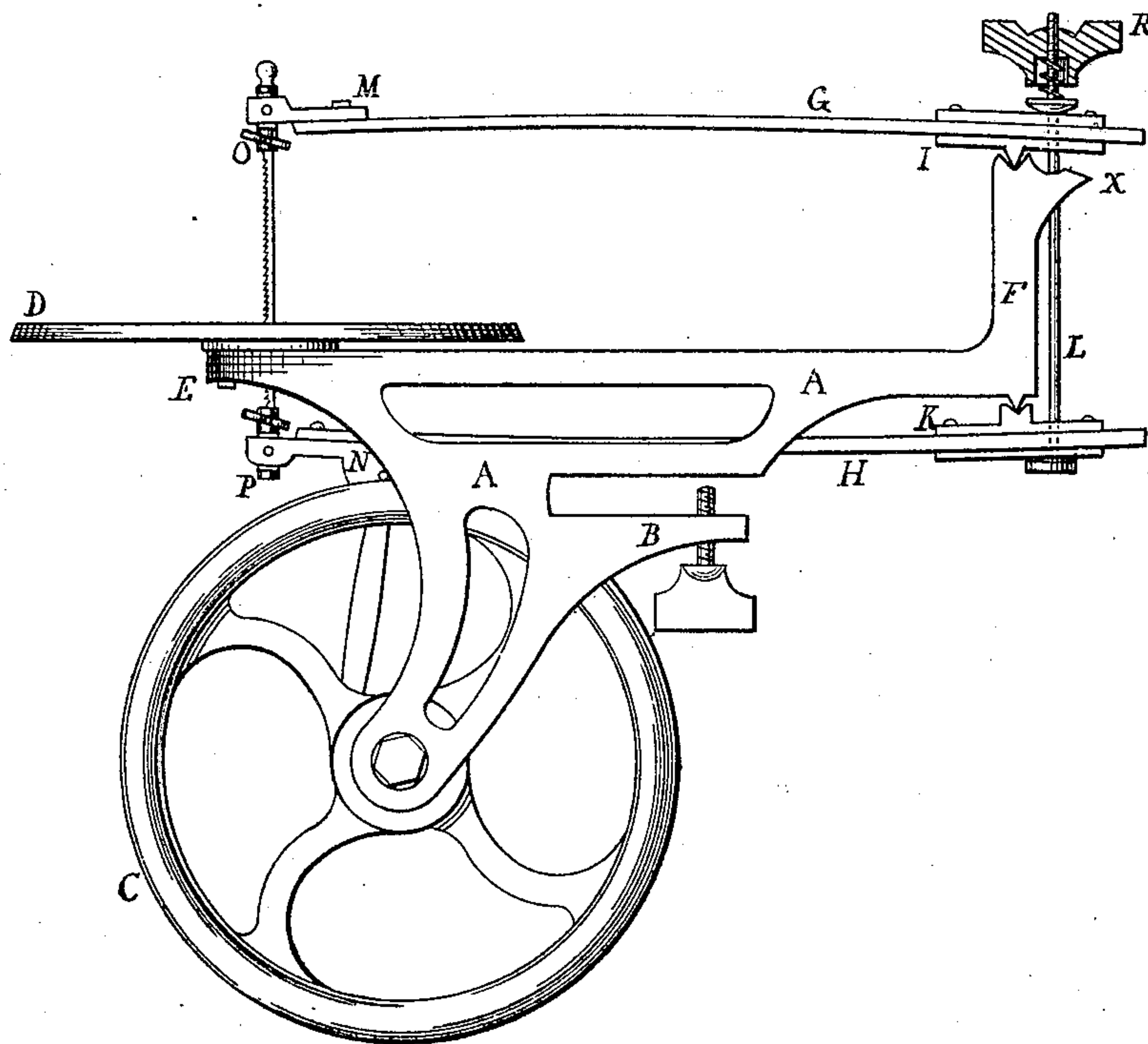


C. N. & S. N. TRUMP & C. FREDERICK.
 SCROLL SAWING-MACHINE.

No. 185,270.

Patented Dec. 12, 1876.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHARLES N. TRUMP, SAMUEL N. TRUMP, AND CHRISTIAN FREDERICK, OF
WILMINGTON, DELAWARE.

IMPROVEMENT IN SCROLL-SAWING MACHINES.

Specification forming part of Letters Patent No. 185,270, dated December 12, 1876; application filed
October 3, 1876.

To all whom it may concern:

Be it known that we, CHAS. N. TRUMP, SAML. N. TRUMP, and CHRISTIAN FREDERICK, of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Scroll-Sawing Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

In the drawing, A is the cast-metal frame of the machine. A jaw is formed by the projecting lip B, through which passes a set-screw for the purpose of clamping it firmly to a table or other support. The fly-wheel C is hung upon a suitable pivot or stud at the lower extremity of the frame A. A horizontal table, D, upon which the work to be sawed rests, is fastened by screws at E. The vertical part of the frame, which for convenience we designate as the standard F, is fitted with a transverse V-shaped groove on top and a knife-edge on the lower side.

The arms G and H are of tough and elastic wood. Plates I and K, the upper one having a knife-edge and the lower one a V-shaped groove to fit the groove and knife-edge of the standard F, are attached to the forward ends of the arms G and H, and the arms are held in place upon the standard by the straining-rod L. Upon the smaller ends of the arms G and H are attached the plates M and N, each carrying pivoted upon it the clamps O and P, which receive and hold the ends of the saw-blade. The upper end of the pitman is connected by a pin to the plate N, and the lower end to the crank-wrist of the fly-wheel, and the motion thus transmitted to the saw. The thumb-nut R, on the straining-rod L, is used to bring a sufficient strain upon the blade to keep it taut, and also to adjust the arms for blades of varying lengths. This nut is capped, and contains within it a spiral spring which presses on the top of the upper arm,

when from any cause the saw is disconnected, and brings it down upon the projecting lip or rest X of the standard, and at once arrests its motion without danger of injury to either the hands of the operator or to delicate work from broken pieces of the saw-blade which may remain in the clamp.

The clamps O and P are pivoted to the plates which attach them to the arms, the object being that when the saw-blade is forced out of a perpendicular line by the too rapid feeding of the wood by the operator, the clamp itself, swinging upon its pivot, will yield a little, and save the blade from being pressed against the rigid neck of the clamp, whereby the saw-blades are frequently broken.

In other arrangements of this kind of machinery, so far as we know, it is the custom to put both knife-edges on the same part; but as we arrange them we get both V-shaped grooves, with their mouths or open parts, turned upward, so that they will hold oil for lubricating the bearings. We also make the plates with a little transverse rib, which, fitting into corresponding depressions in the standards, prevent any lateral movement of the vibrating saw-arms.

The treader mechanism for operating this machine will be made the subject of a separate application; but the machine, as here described, can be worked to advantage by any suitable foot-power, or by a belt from a pulley driven by steam.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The cast-metal frame A, having the jaw and set-screw, by which it is fastened to a table with the dropping arm, upon which is hung the fly-wheel C, and with the vertical standard F with its projecting lip or rest X.

2. In a scroll-sawing machine, made with vibrating arms, the combination of a stop or rest, X, for the back end of the saw-arm, with the auxiliary spring and capped nut on the straining-rod, to hold the upper arm at rest, and both arms in their bearings when the saw-blade is from any cause disconnected.

3. In a scroll-sawing machine, substantially as described, the combination of the frame A, having the stop or rest X, fly-wheel C, table D, vibrating arms G and H, connected by a rod, L, provided with a spring-nut at its upper end, pivoted clamps O and P, and pitman connecting the lower arm and fly-wheel.

In testimony that we claim the foregoing as

our own we affix our signatures in presence of two witnesses.

CHAS. N. TRUMP.

SAML. N. TRUMP.

CHRISTIAN FREDERICK.

Witnesses:

E. B. FRAZER,

EDWARD MCINALL.