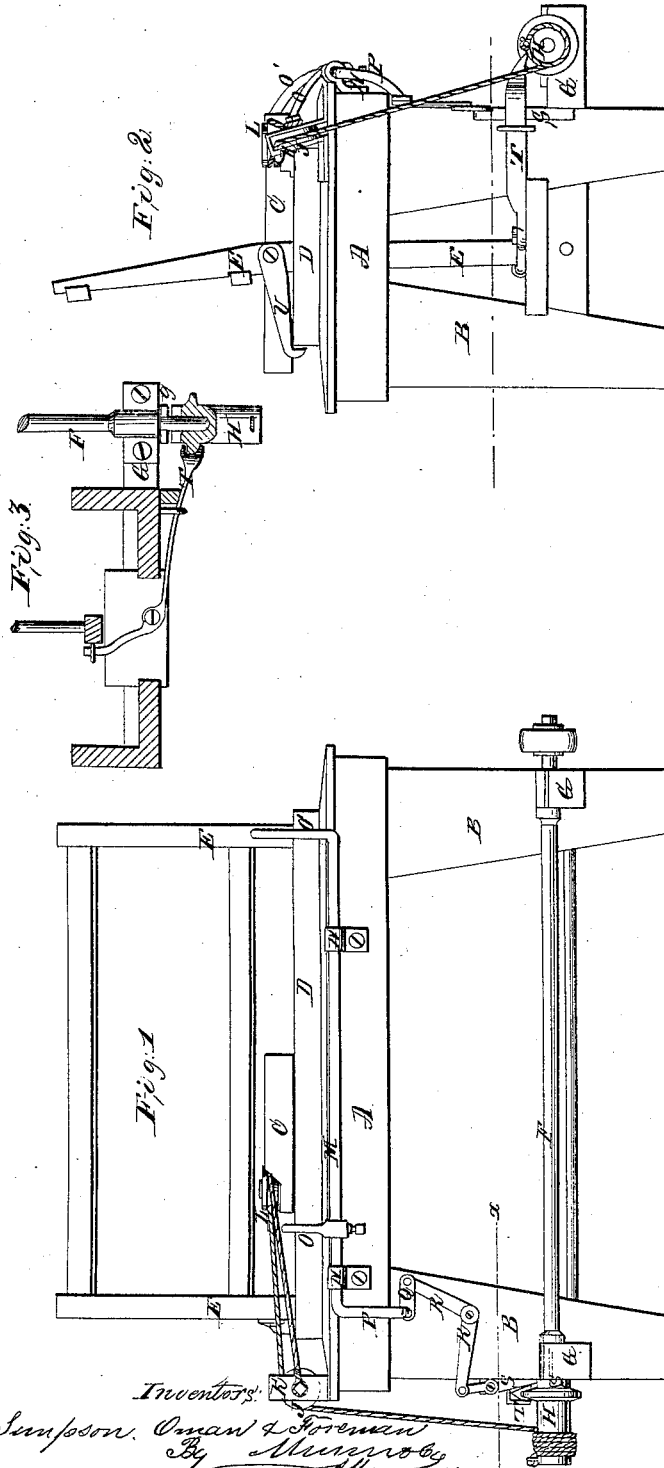


Simpson, Oman & Foreman,

Turning Regular Forms.

No. 57,984.

Patented Sep. 11, 1866.



Witnesses:
Alvin C. Hauke
Chas. F. Pettit

Inventors:
Simpson, Oman & Foreman
By Murray & Howard

UNITED STATES PATENT OFFICE.

WM. SIMPSON, Z. OMAN, AND S. FOREMAN, OF NOTTAWA, MICHIGAN.

IMPROVEMENT IN TURNING-LATHES.

Specification forming part of Letters Patent No. 57,984, dated September 11, 1866.

To all whom it may concern:

Be it known that we, WILLIAM SIMPSON, ZEBOATH OMAN, and STANTON FOREMAN, of Nottawa, in the county of St. Joseph and State of Michigan, have made new and useful Improvements in Gig-Backs for Turning-Lathes; and we do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, sufficient to enable one skilled in the art to which it is allied to construct and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is an end elevation. Fig. 3 is a plan of the portion below section-line *x x*, Fig. 1.

Similar letters refer to corresponding parts in the different figures.

The improvement consists in an arrangement of devices for a lathe or analogous machine, by which the carriage containing the blank and the form is automatically giggered back after its effective stroke when it has reached the defined limits.

In machines of this character the effective action is performed by the single passage of the blank before the tool, the blank being removed at the end of its stroke and another one chucked in its place. The means of this effective propulsion are not shown in the drawings, as they form no part of this invention, which consists of a means for automatically giggering back the carriage to its initial position ready for another effective stroke. In this machine these motions of the carriage bring it in contact with tappets on the rod, which make or break a clutch-connection with the continuously-revolving gig-back shaft.

In the drawings, A is the bench, supported upon legs B B. C is a carriage, supported and sliding upon ways D D. E is the tool-frame, whose posts are pivoted below to the frame. F is a continuously-revolving gig-back shaft, supported upon blocks G G, projecting from the legs of the bench. At the end of this shaft is a drum, H, which is sheaved thereupon, so as by longitudinal mo-

tion to engage with or be disengaged from the clutch-pin *g*.

Attached to the drum H is a cord, I, which winds thereon when the clutch-connection is made, and, traversing over a pulley, J, mounted on a standard, K, on the bench, is passed over a pulley, L, on the carriage, and thence returning is attached to a stationary point—say, the standard K.

M is a tappet-rod, which slips longitudinally in bearings N N by the contact of the carriage with the tappets O O', which project from the rod M. The tappet O, forming a bent termination to the rod, is rigidly attached thereto, while the tappet O' is adjustable, so as to cast off the clutch-connection at such time as corresponds to the length of the blank under treatment.

An arm, P, passing downwardly from the rod M, is pivoted by a link, Q, to a rocking elbow, R, whose outer end carries a wedge, S, the latter acting to push outwardly the spring drum-shifter T, so as to disengage the drum from the clutch-pin *g* on the shaft F and stop the feed.

The reverse motion of the rod M, by lifting the wedge S, allows the spring-piece T to close the drum against the clutch-pin and restore the connection between the gig-back rod and the carriage. The hook U on the tool-frame allows the latter to be fastened back when changing the blanks.

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

The arrangement of the tappet-rod M with tappets O O', by contact with which the carriage is made to operate the clutch-drum on the gig-back shaft F, substantially as and for the purpose described.

WM. SIMPSON.
ZEBOATH OMAN.
STANTON FOREMAN.

Witnesses:

JOHN S. WEEKS,
JOSIAH LAND.