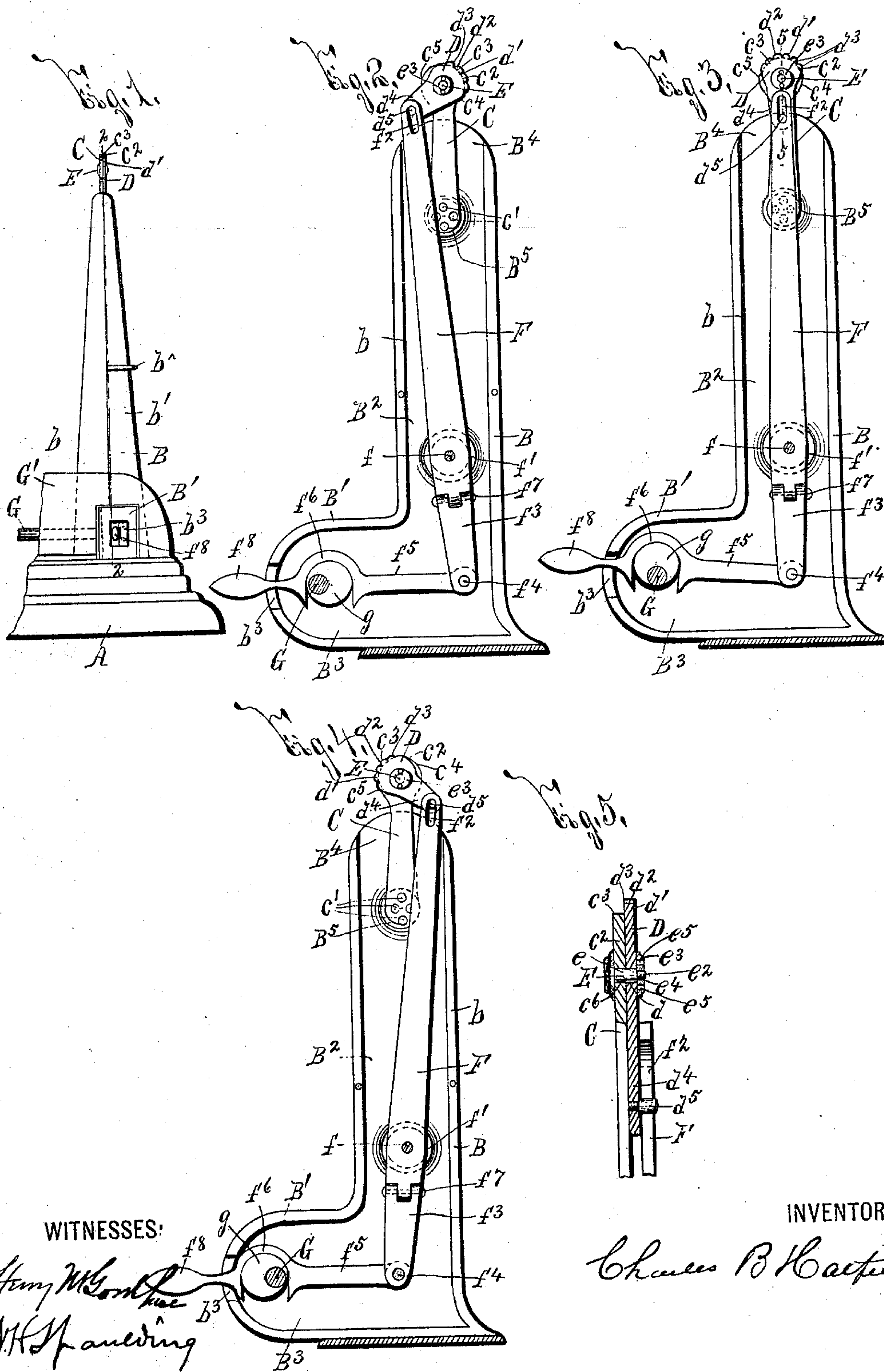


C. B. HATFIELD.
SCALLOP TURNING MACHINE.

Patented Nov. 28, 1893.



THE NATIONAL LITHOGRAPHING COMPANY.
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES B. HATFIELD, OF ROCHESTER, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO QUENTIN W. BOOTH AND IRVING E. BOOTH, OF SAME PLACE.

SCALLOP-TURNING MACHINE.

SPECIFICATION forming part of Letters Patent No. 509,469, dated November 28, 1893.

Application filed May 10, 1893. Serial No. 473,727. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. HATFIELD, of Rochester, in the county of Monroe, in the State of New York, have invented new and useful Improvements in Scallop-Turning Machines, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in scallop turning machines, and has for its object the production of a simple and practical device, which is particularly efficient in use and economical in manufacture; and to this end it consists, essentially, in a primary member having a working end formed with an upper edge and side edges on opposite sides thereof, and a second oscillating member having a working end provided with an outer edge movable consecutively beyond one of said side edges the upper edges and the other of said side edges.

The invention furthermore consists in the detail construction and arrangement of the parts, all as hereinafter more particularly described and pointed out in the claims.

In describing this invention, reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is an edge view of my improved invention, shown as operatively mounted within an upwardly projecting arm formed upon a suitable supporting frame, only a portion of which is illustrated. Fig. 2 is a vertical sectional view, taken on line —2—2—, Fig. 1, the oscillating member of my scallop turning machine being shown as swung toward the right-hand with the outer edge of its working end projecting beyond the right-hand side of the working end of the primary or stationary member. Fig. 3 is a sectional view similar to Fig. 2, the oscillating member being illustrated as in its position assumed when the outer edge of its working end projects beyond the left-hand side of the working end of the fixed member; and Fig. 5 is a detail vertical sectional view, taken on line —5—5—, Fig. 3.

The frame or base —A— of my improved

scallop turner is of any desirable form, size, and construction, and, as the same forms no part of my present invention, I have shown only a portion of said frame. Projecting upwardly from the illustrated portion of the frame —A— is an arm —B— formed with a lateral branch —B'— at its base and composed of the fixed rear section —b— formed integral with or rigidly secured to the frame or base —A—, and the front section —b'— removably secured to the former section by any suitable construction of clasp —b²— not necessary to further illustrate or describe.

The arm —B— is formed with an internal chamber —B²— having a laterally extending branch chamber —B³— at its lower end extending within the lateral branch —B'— of the arm —B— and is provided with a slot —B⁴— at its upper end opening into the chamber —B²—.

The primary stationary or fixed member —C— of my improved scallop turner is preferably composed of sheet metal of the desired strength and rigidity, and is arranged with one end —c— within the chamber —B²— and the other projecting upwardly through the slot —B⁴—. The lower extremity of said member —C— is fixed or rigidly secured by suitable fastening means —c'—c'— to a boss or arm —B⁵— projecting from the inner face of the arm section —b—, and the upper extremity of said member —C— is formed with a working end —c²— having a rounding upper edge —c³— and right and left side edges —c⁴—c⁵— on opposite sides of the edge —c³—. The oscillating member —D— is supported upon the upper extremity of the stationary or fixed member —C— by a pin —E— consisting of a section —e— formed with a head bearing against the outer face of the member —C— and a screw-threaded shank passed through openings —c⁶— and —d— formed respectively in the fixed and oscillating members —C—D—; and a section —e³— formed with a screw-threaded aperture —e⁴— for receiving the end of the shank —e²— of the section —e—. To facilitate the ready securement together of the sections —e—e³— of the pin —E— the head —e'— of the section —e— and the section —e³— are each formed with two or more

perforations — c^5 — adapted to receive projections upon an ordinary thumb piece, not necessary to herein illustrate or describe, for enabling the operator to hold one section stationary and revolve the other until said sections are firmly screwed together. Formed upon the oscillating member —D— is a working end — d' — having a portion — d^3 — of its outer edge adapted to project successively, upon each oscillation of said member —D—, beyond one of the side edges, the upper edge, and the opposite side edges of the working end — c^2 — of the member —C—, as clearly seen at Figs. 2, 3, and 4. The projecting edge of the working end of the oscillating member —D— thus rolls from one end of the scallop to its opposite end, and continually stretches the same during said movement. This action of the oscillating member serves, in connection with the primary stationary or fixed member, to thoroughly stretch each loop when engaged with said members and to render my invention particularly efficient and practical in use.

The efficiency of my present invention is further augmented by forming the outer edge of the working end — d' — of the oscillating member —D— with a series of serrations — d^3 — which successively stretch the scallop and act as a series of movable members. The oscillating member —D— may be operated by any desired form or construction of mechanism for actuating the projecting edge of its working end to project successively beyond one of the side edges, the top edge and the other side edge of the working end of the stationary member —C—. As here illustrated, however, this actuating mechanism consists of a lever —F— pivoted at — f — to a hub or boss — f' — on the inner side of the stationary arm section — b —.

Although the upper end of the lever —F— may be suitably connected to the lower end — d^4 — of the oscillating member —D— I have here shown the lever —F— as formed with a lengthwise slot — f^2 — and the lower end of the oscillating member —D— as provided with an arm or pin — d^5 — movable in the slot — f^2 —. Consequently as the upper end of the lever —F— is rocked to and fro the working end of the oscillating member —D— is oscillated as described, and, in connection with the stationary member —C—, efficiently and practically turns and stretches the scallops or seams engaged with said members. The lower end — f^3 — of the lever —F— is hinged at — f^4 — to an arm or link — f^5 — extending within the branch chamber — B^3 —, and having its outer end provided with a loop or open eccentric strap — f^6 — for engaging an eccentric — g — within the outer end of said chamber — B^3 —. The eccentric — g — is mounted upon a shaft —G—, (only a portion of which is illustrated) arranged lengthwise of the frame or base —A— with one end journaled in the branch arm — B' —, and driven by any suitable con-

struction of power transmitting mechanism not necessary to herein illustrate or describe. As the shaft —G— is revolved the eccentric — g — reciprocates the arm or link — f^5 —, and rocks the lever —F—, as clearly shown at Figs. 2, 3, and 4. The exposed portion of the shaft —G— is incased by a removable casing — G' —, a portion of which I have illustrated at Fig. 1.

In order that the lever —F— may be permitted to stand still when desired, the lower end — f^3 — of said lever is hinged at — f^7 — to the upper portion thereof and the loop or open eccentric strap — f^6 — is formed with a projecting arm — f^8 — extending outwardly from the branch chamber — B^3 — through a slot — b^3 — in the outer end of the branch arm — B' —. As the operator swings this arm — f^8 — to the position shown by dotted lines at Fig. 1 the open eccentric strap is moved lengthwise in the shaft —G— from engagement with the eccentric — g —, and the shaft —G— revolves without transmitting motion to the lever —F— until the loop or open eccentric strap is again engaged with the eccentric thereon as shown at Figs. 2, 3, and 4.

The operation of my invention will be readily perceived from the foregoing description and upon reference to the drawings, and it will be readily understood by one skilled in the art that its parts are simple in construction, economically manufactured and assembled, strong and durable in use, and are particularly practical and efficient in operation. It is evident, however, that the detail construction and arrangement of my scallop turning machine may be somewhat changed without departing from the spirit of my invention. Hence I do not herein specifically limit myself to such detail construction and arrangement.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a turning machine, the combination of a primary turning member having a working end formed with an upper edge and side edges on the opposite sides thereof, an oscillating turning member swinging back and forth across the face of the primary turning member, said oscillating turning member having a working end provided with an outer edge extending at all times beyond the working end of the primary turning member, and means for oscillating said oscillating member back and forth whereby the outer edge thereof is moved during its oscillation in each direction consecutively beyond one of the side edges, the upper edge and the other side edge of the primary member, substantially as set forth.

2. In a turning machine, the combination of a primary turning member having a working end formed with an upper edge and side edges at the opposite sides thereof, an oscillating turning member having a working end

provided with an outer serrated edge, and means for oscillating said oscillating member whereby its serrated edge is moved consecutively beyond one of the side edges, the
5 upper edge and the other side edge of said primary member, substantially as set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attest-

ing witnesses, at Rochester, in the county of Monroe, in the State of New York, this 12th 10 day of April, 1893.

CHARLES B. HATFIELD.

Witnesses:

H. M. GOODHUE,
GEO. J. GOODHUE.