

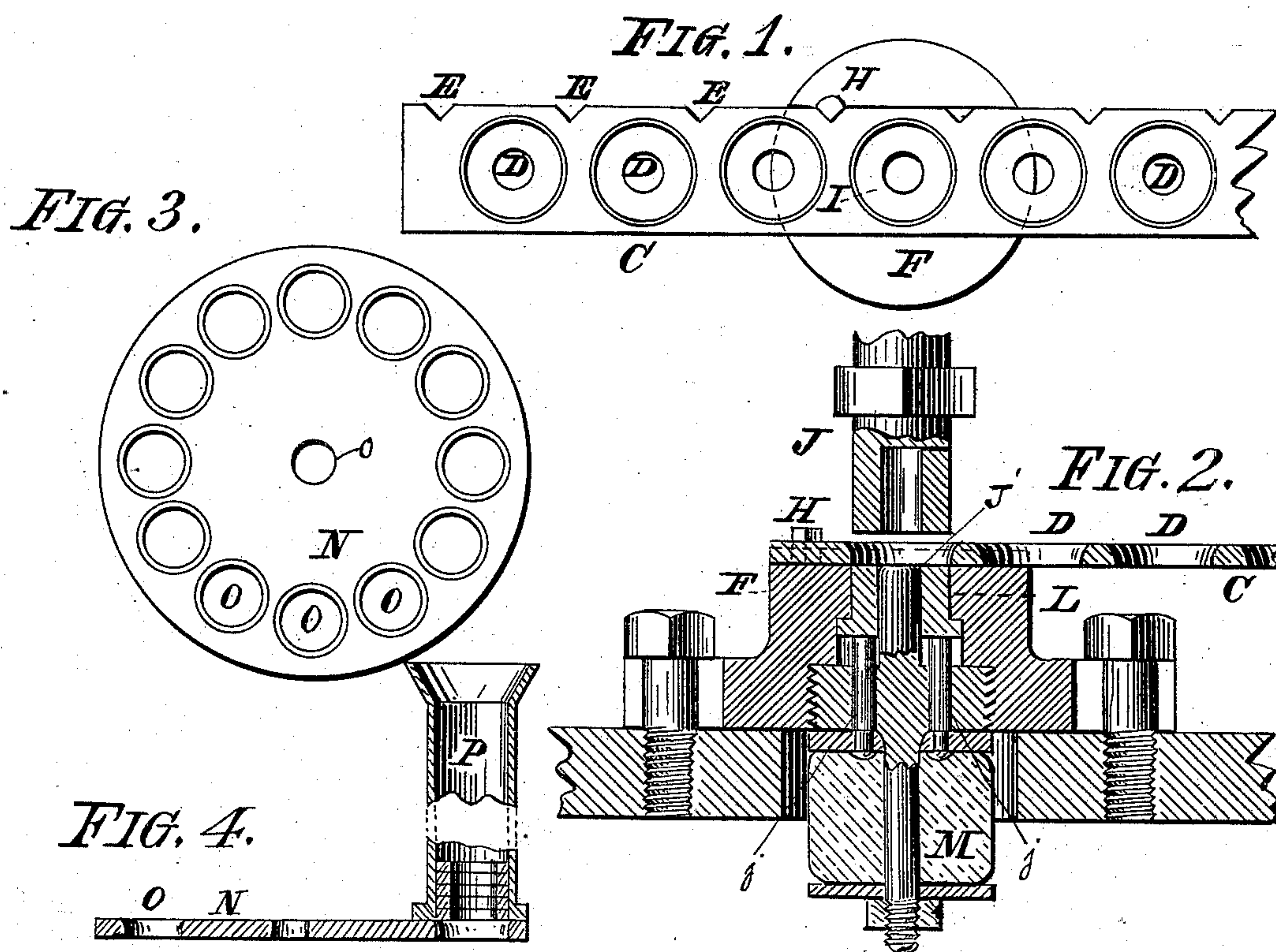
(No Model.)

T. GINGRAS.

MECHANISM FOR MANUFACTURING WASHERS.

No. 270,301.

Patented Jan. 9. 1883.



Witnesses:

Willie C. Stark
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UNITED STATES PATENT OFFICE.

TIMOTHY GINGRAS, OF BUFFALO, NEW YORK.

MECHANISM FOR MANUFACTURING WASHERS.

SPECIFICATION forming part of Letters Patent No. 270,301, dated January 9, 1883.

Application filed April 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY GINGRAS, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements on Mechanism for Manufacturing Leather Washers; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mechanism for making washers from strips of leather; and it consists more particularly in certain devices, hereinafter set forth and claimed, for shaping such washers and uniting the ends of the strip in each instance after the said ends have been brought together.

Figure 1 represents a plan view of a straight carrier and die embodying my invention; Fig. 2, a vertical section through the die and punch and a part of the carrier; Fig. 3, a detail plan view of a carrier adapted to rotate, and Fig. 4 a vertical section through the latter form of carrier and the hopper connected therewith.

It has been customary to interlock the ends of the washer and compress the same by a puncher and die for the purpose of uniting them more firmly; but the handing of the successive washers to these compressing devices is a tedious and troublesome procedure. To obviate this inconvenience I employ a carrier for said washers, which may be either a straight plate or board, C, Figs. 1 and 2, provided with a longitudinal series of openings, D, and adapted to be drawn lengthwise between the die and the punch, or a disk, N, having a circular series of openings, O, and a central hole, o, which allows said disk to turn about an axis, this disk-shaped carrier being shown in Figs. 3 and 4.

J designates the punch; F, the die; J', a fixed guide-stud, which protrudes through each washer as the punch forces said washer down through the carrier and into the central recess of said die; L, a yielding block against which said plunger bears in its descent; j j,

pins which connect said block to a plate that rests on a spring, M, preferably of india-rubber.

The strip or plate C is provided on one edge with notches E, arranged at such intervals as to regulate by engagement with a fixed stud, H, on the die F the presentation of the washers successively to the punch and die.

The openings D are caused to flare upward, and the washers I are nearly equal in diameter to the upper diameter of said openings. Consequently the washers will remain in the latter till driven down by the plunger. Thereafter they are piled upon block L and around guide-stud J', where they remain until plate C has entirely passed. The elasticity of spring M will then lift them above the face of die F. The movable parts L and j j, before referred to, are suitably guided.

When the disk N is employed its axis must be at such a distance from the punch and die that the openings O will be presented successively over said die, when said disk is intermittently rotated about said axis. I employ a hopper, P, to supply said openings with washers; but they may be supplied in any other convenient manner.

The carrier C or N may be operated by hand or by any mechanism suitable to the intermittent motion required.

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

1. In combination with a punch and a yielding die, a carrier having a series of openings for receiving washers and successively presenting them under a punch and over a die, for the purposes set forth.

2. In combination with a punch, die, and fixed stud, H, a carrier, C, having guide-notches E at regular intervals in one of its edges, said notches being adapted to engage with said stud, for the purpose set forth.

In testimony that I claim the foregoing as my invention I have hereto set my hand in the presence of two subscribing witnesses.

TIMOTHY GINGRAS.

Attest:

MICHAEL J. STARK,
JOHN C. DUERR.