A. Goodyear.

Scalloping Leather.

No. 73243 Patented Jan. 14, 1868

Fig. 1.

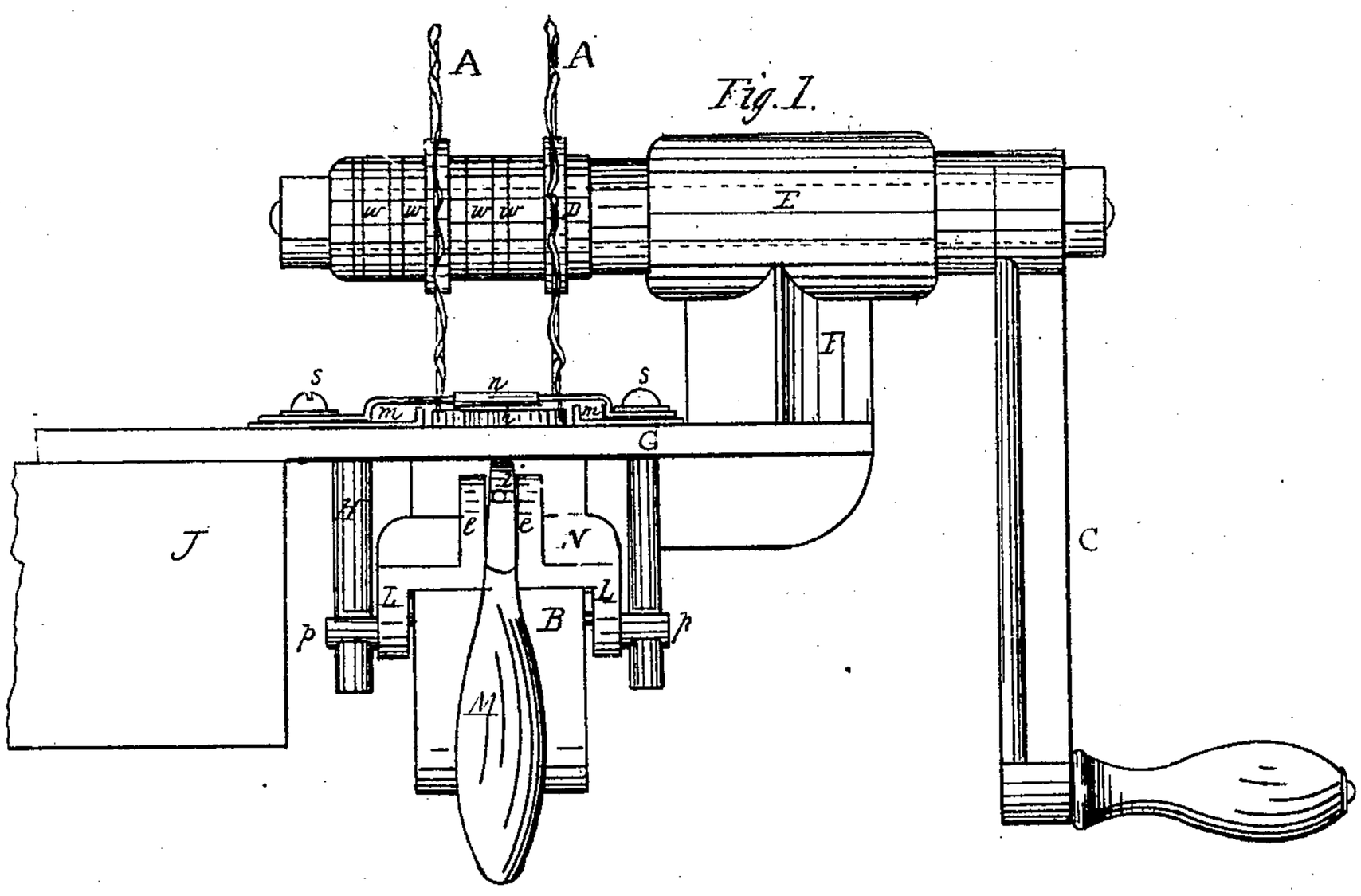


FIG. 3.

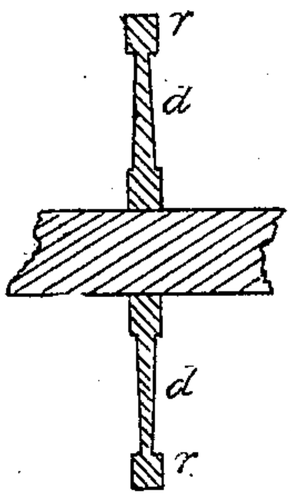
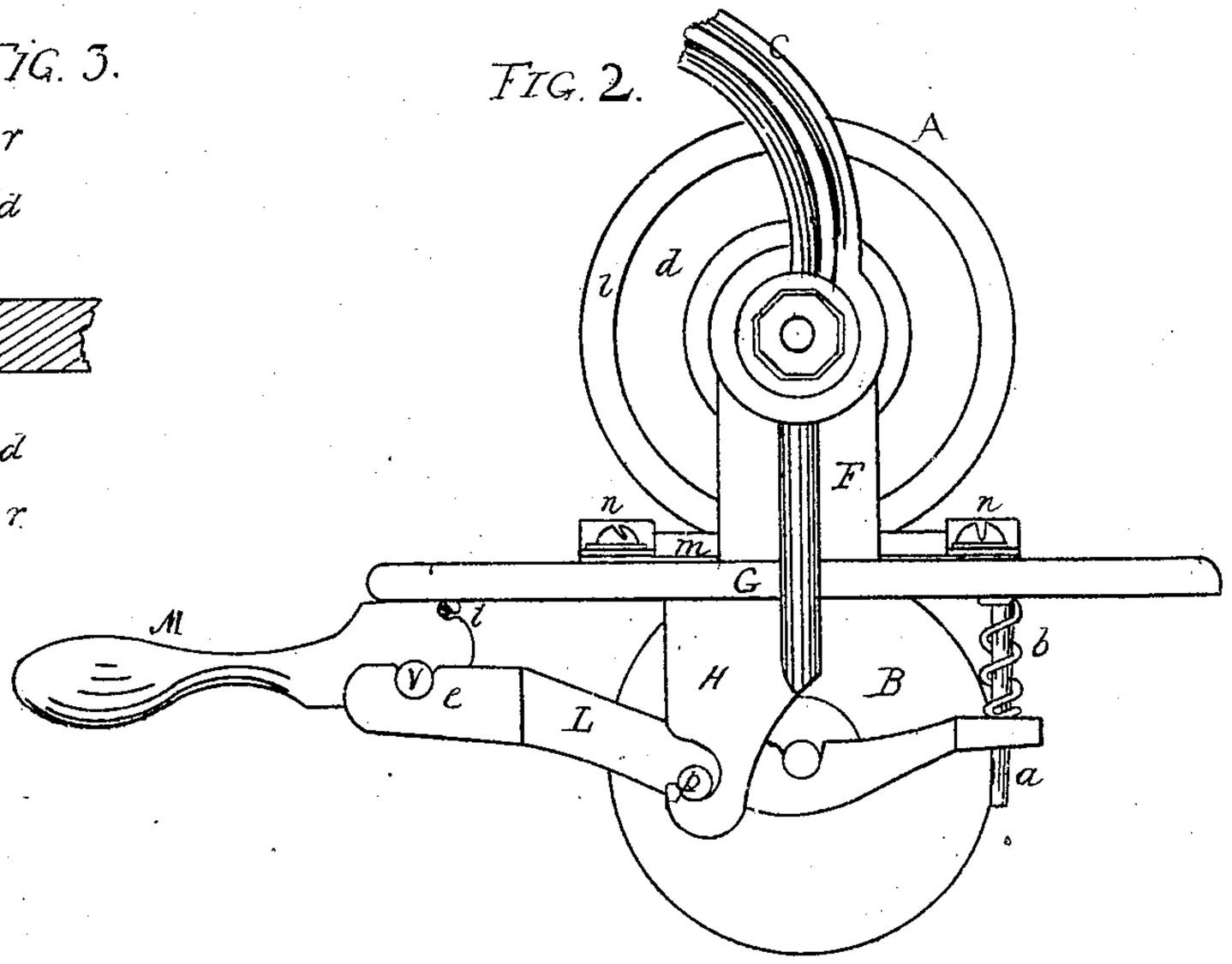


FIG. 2.



Witnesses

Wm. D. Chapple
Isaac D. Flanagin

Inventor

Andrew Goodyear

United States Patent Office.

ANDREW GOODYEAR, OF ALBION, MICHIGAN.

Letters Patent No. 73,243, *dated January* 14, 1868.

IMPROVED MACHINE FOR SCALLOPING LEATHER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ANDREW GOODYEAR, of the village of Albion, in the county of Calhoun, and State of Michigan, have invented a new and improved Machine for Cutting Scalloped or other Ornamental-Shaped Edges on Harness-Straps or other articles; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation.

Figure 2 is an end view.

Figure 3 is a cross-section of cutting-disk.

Similar letters indicate like parts in all the figures.

The nature of my invention consists in the employment of one or more steel disks, an annular portion of the two faces of each disk next the periphery being shaped radially into scalloped or other ornamental forms, and brought to a cutting-edge, said disks being mounted on an arbor, and operated in connection with an adjustable bed-roller and other parts, substantially in the manner I am now about to describe.

I hang my scalloping-disks, A, on an arbor (see dotted lines) by making a close-bored and turned fit, and screwing them up tightly against a shoulder, D, or chuck, in a manner analogous to that employed in hanging saws, and where two disks are used, as in fig. 1, I interpose faced washers, *w*, between, to adjust them a proper distance apart on said arbor. The arbor is provided at one end with a crank, C, and is hung in a long bearing at E, connected by a cast standard, F, with a bed-plate, G, upon which the material to be cut is guided, and by which the machine is fastened to the work-bench, as at J. The bed-roller B, which receives the impact of the cutting-disks, is hung between a pair of forked levers, L, provided with outer fulcrum-pins, *p*, which work in bearings formed in the two hangers H, which hangers are cast on or otherwise attached to the bed-plate. The lever-fork, seen in fig. 2, is extended sufficiently to receive in a slot a guide-pin, *a*, which pin is enclosed with a spiral spring, *b*, to force down the bed-roller when released by the operating-device, which consists of a simple hand-lever, M, having a cam-shaped head hung eccentrically by pins *v* between ears *e*, cast or forged to the centre of the connecting-bar N of the forked levers. A screw or other gib, *i*, may be inserted in the head of the hand-lever to compensate for wear; and in this connection I will say that the special object of my system of compound levers is to enable the operator to manipulate the bed-roller rapidly, and provide sufficient lifting-power to penetrate the article; for instance, should a harness-strap, *h*, only require scalloping for a limited portion of its length, distant from either end, the ornamental boundaries are first marked on the strap, when, the bed-roller being lowered, as in fig. 1, the strap is introduced under the scalloping-disks to the proper point, when the operator, lifting the hand-cam lever M to the position in fig. 2, forces the bed-roller and strap against the cutting-edge of the disks, so that the strap is cut through at that point, and by revolving the crank properly, the strap is drawn along and scalloped the allotted distance, when the hand-lever is lowered to its first position, (the spring *b*, or equivalent device, forcing the bed-roller back,) the strap is liberated from the cutters, and drawn out of the guide space, and the superfluous cut portions are separated by a hand-knife from the strap.

I construct my bed-rollers in various ways to suit the material to be cut. They may be of cast iron, and banded or faced with soft metal, or they may be of raw hide, or of wood, which is cheap, and answers a very good purpose, either plain, or built up in sections and banded, so as to present the endway of the grain to the cutters.

My mode of shaping the disk-faces into ornamental forms may be readily understood by a reference to fig. 3, where a turned disk, ready for shaping, is shown as cut across the centre, at a right angle with its face. The rim *r* is turned to a thickness required by the corrugation or wave of the pattern-line, the intermediate annular portions, *d*, between the hub and rim being sunk as much as may be consistent with due stiffness for the designed work. I turn down these annular portions of the faces to reduce the surface of metal to be cut away in shaping, and also to give freedom to the file or other cutting-tool employed. The rim is then shaped to the desired pattern, by filing or otherwise cutting away portions of the metal on each side to a pattern-line previously marked on the face of the disk's periphery. For the purpose of guiding the article to be operated on, I employ

one or two slotted guides or gauges, *m n*, adjusted and secured across the face of the bed-plate by a set-screw, *s*, near each end.

Harness-straps or other articles of any length may thus, by the use of my revolving scalloping-disks, be very expeditiously cut to any desired pattern, on one or both edges, with great regularity, by merely turning the crank, which will revolve the cutting-disk or disks A and bed-roller B in different directions, and draw the article through either a portion or the whole of their length.

I disclaim, broadly, cutting anything by passing it between revolving cutters and an adjustable bed-roller, for straw is cut in this manner, but I have no knowledge of radially-corrugated cutting-disks ever having been employed in connection with a bed-roller for any purpose analogous to mine; therefore,

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

1. A cutting-edged disk, A, with radial corrugations or other ornamental-shaped indentations formed around it on both its faces next the periphery, substantially in the manner and for the purpose herein described.

2. The use of one or more revolving cutting-disks A, with faces shaped radially in ornamental forms, in combination with an adjustable bed-roller, B, and levers L and M, mounted in a suitable frame, and arranged, adjusted, engaged, and operated, substantially as and for the purposes set forth.

ANDREW GOODYEAR.

Witnesses:

WM. D. CHAPPLE,

ISAAC D. FLANAGIN.