H. H. EDWARDS.

Wheels for Indexing.

No. 157,163. Patented Nov. 24, 1874.

FIG I

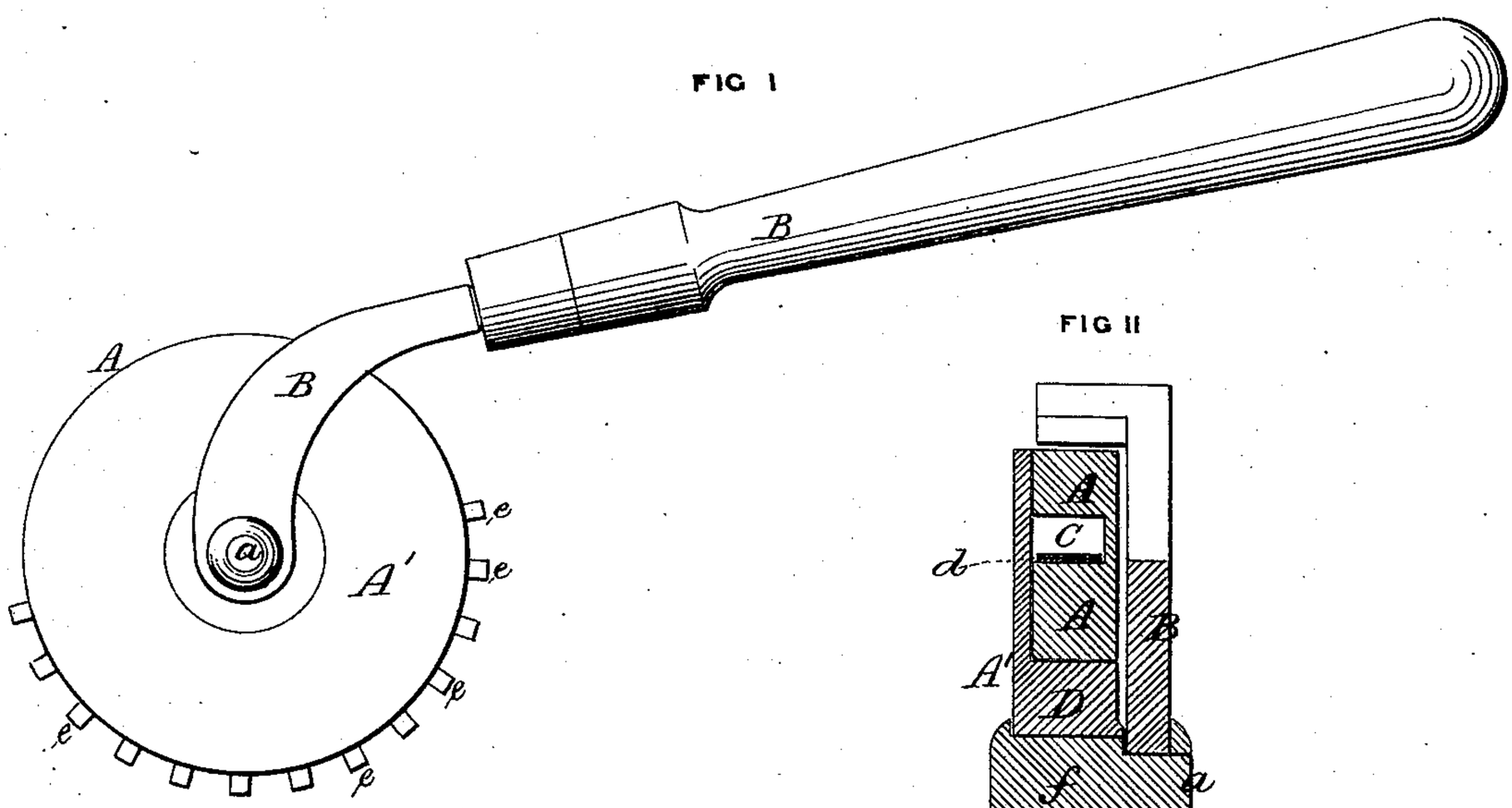


FIG II

FIG IV

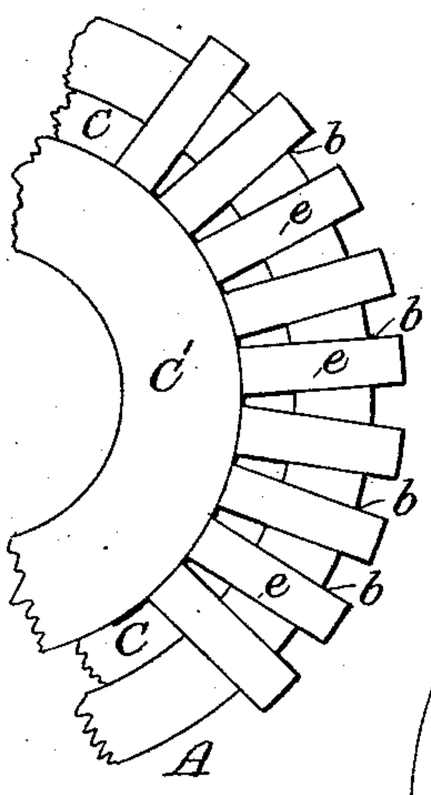
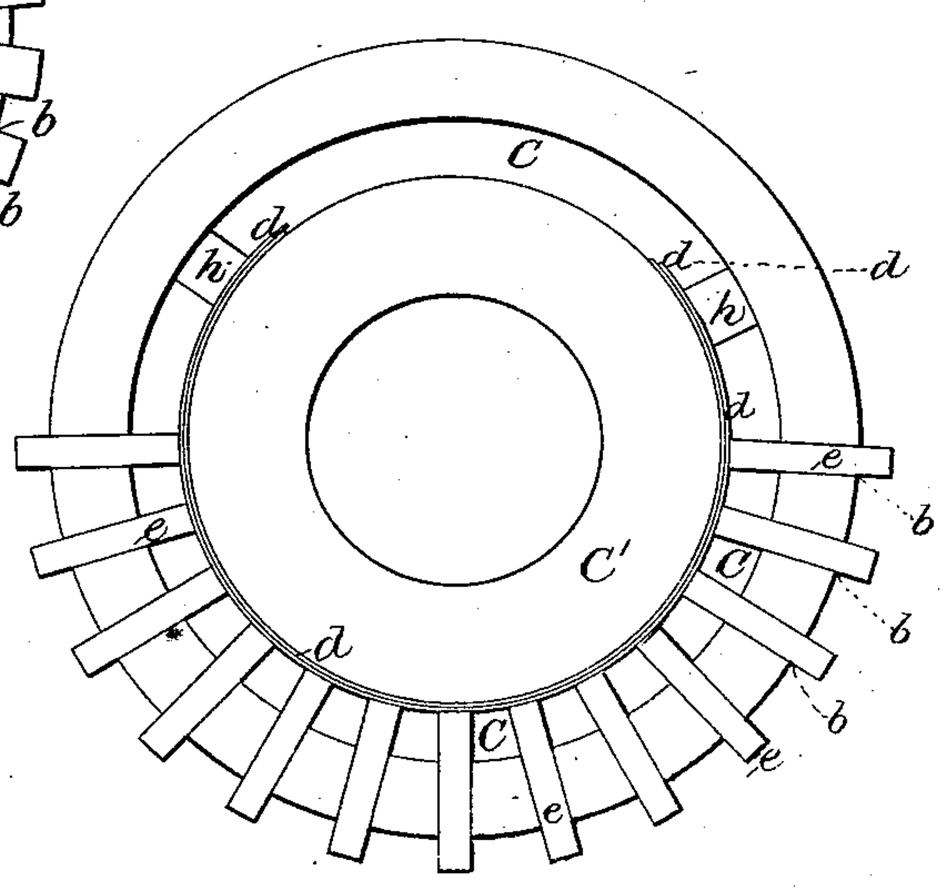


FIG III



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY H. EDWARDS, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN WHEELS FOR INDEXING.

Specification forming part of Letters Patent No. **157,163**, dated November 24, 1874; application filed September 9, 1874.

To all whom it may concern:

Be it known that I, HENRY H. EDWARDS, of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Wheels for Indexing and Gilding; and I 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 pertains 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.

My invention consists of an indexing-wheel having an interior annular space, in combination with the removable adjusting open bands or rings of uniform thickness, wrapped one upon the other upon the base-wall of said space to form the type-seat, and give the series of type an equal projection from the annular seat, whereby the type are projected from the outer periphery to form circles corresponding to different lengths of pages. The separate bands being of uniform thickness, and seated concentrically upon a concentric seat, renders such adjustment convenient and easily made, and, by a construction and combination of devices, well and cheaply adapted to the indexing-wheel.

In the accompanying drawings, Figure 1 represents an elevation of my improved printing and gilding wheel; Fig. 2, a section thereof, and Fig. 3 a view with the side cap removed to show the manner of setting the type, and of increasing or diminishing their circumferential distances apart.

The wheel A is driven upon its journal *a* by the curved reach B, and this wheel has openings *b*, which extend radially from its periphery, and open into an annular space, C, on the inner face of the wheel. The base or inner wall C′ of this space is embraced by one or more bands or rings, *d*, fitted within the annular space, and upon which rest the bottoms of the types *e*, which extend radially therefrom. The wheel is completed by a cap side piece, A′, a hub, D, whereof carries the journal-bearing *f* for the handle B. This cap is secured to the face of the wheel, so that it may be readily removed to permit of the insertion of the type, and of the placing of the bands *d* between the bottoms of the type and the inner wall of the annular space.

It is desirable, frequently, especially in printing the indexes of memorandum-books or blotters, &c., of different lengths, to increase or decrease the distance between the printed letters, abbreviations of months, &c. I accomplish this by increasing or diminishing the number of the rings *d*, as, if a ring be added to those in the space C between the type and the base C′ of said space, the types *e* will be all extended in their respective radiuses, and their circumferential spaces apart proportionately increased. If a ring be removed, the reverse takes place. The bands are not continuous, but are interrupted, and their ends are confined in the parts free from the controlling pressure of the type by a wedge or wedges, *h*, driven between said rings and the outer wall of the annular space. The bands *d* must be of uniform thickness throughout their length. The removable cap not only affords facility for adjusting the type, but for heating the wheel of type independent of the cap and the carrying reach, when it is desired to print gilt letters, and these parts are thereby saved from injury. The wheel is of metal, and used in the manner well understood by book-finishers.

When the types do not require adjustment, they are seated and clamped directly upon the inner wall of the annular projection *c′* of the wheel.

I claim—

In an indexing-wheel the interior annular space C, and the concentric seat C′, in combination with the removable adjusting bands or rings *d*, wrapped one upon the other upon the base-wall C′ of said space, to form the type-seat, whereby the type are projected from the periphery to form circles corresponding to the different lengths of pages.

In testimony that I claim the foregoing I have affixed my signature in presence of two witnesses.

HENRY H. EDWARDS.

Witnesses:

OMAR H. SIMONDS,

EDWARD TAGGART.