

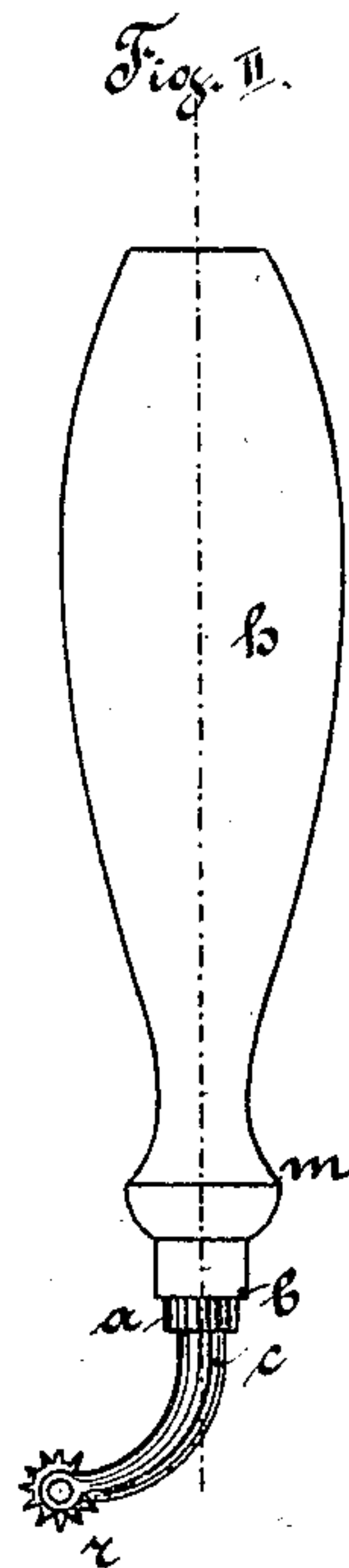
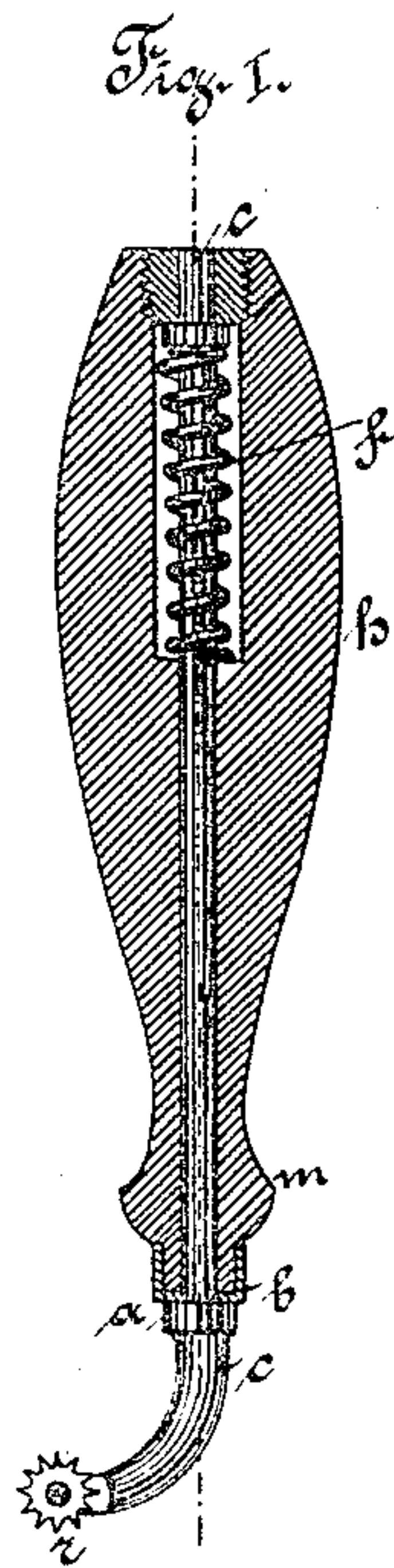
(No Model.)

W. HEIDENHAIN.

MARKING WHEEL FOR TRANSFERRING PATTERNS.

No. 365,129.

Patented June 21, 1887.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILHELM HEIDENHAIN, OF GRAUDENZ, PRUSSIA, GERMANY.

MARKING-WHEEL FOR TRANSFERRING PATTERNS.

SPECIFICATION forming part of Letters Patent No. 365,129, dated June 21, 1887.

Application filed September 5, 1885. Renewed March 11, 1887. Serial No. 230,553. (No model.)

To all whom it may concern:

Be it known that I, WILHELM HEIDENHAIN, a subject of the King of Prussia, and a resident of Graudenz, Germany, have invented a new and useful improvement in marking-wheels for transferring patterns or other lines from paper patterns or drawings to any work or material to which the pattern-lines require to be transferred; and I hereby declare the following to be a full and clear description thereof.

This invention relates to a marking-wheel the periphery of which is provided with radially-projecting points or teeth, somewhat sharpened at their outer extremities, so that they may readily puncture paper or other thin material on which are drawn or marked the lines that are to be transferred. The said marking-wheel is mounted on the outer end of a swivel-spindle which is seated in an operating-handle, so as to allow a slight longitudinal movement or play to the said spindle within its supporting-handle, thereby permitting the wheel as it is pushed along over the lines to be transferred to yield readily to a slight change of direction of the line which is being traced without the implement jumping out of place.

The invention will be readily understood by reference to the accompanying drawings, of which—

Figure I is a central sectional elevation of the improved implement. Fig. II is a side elevation of the same.

The handle *h* is perforated longitudinally for the reception of the rotating spindle *c*, which is centrally seated within it and allowed to rotate in its said seat. The upper end of the central aperture of the handle is chambered out, so as to accommodate a coiled spring, *f*, which surrounds the central spindle and engages against an annular collar formed on the said spindle near its upper end, while the other end of the said spring presses against the bottom end of the chamber in the said handle *h*, so as to habitually draw the said spindle into its seat in the handle, while at the same time hold it yieldingly there, so as to allow it to be drawn slightly out by the traction pressure of the wheel *r*, with which the outer end of the said spindle is provided, as the said spindle is drawn forward over its work. The outer end

of the aperture or chamber for the spring *f* is closed by a screw-plug, which is centrally apertured for the end of the spindle *c*, and this plug forms a stop and abutment for the spring-collar formed on the said spindle to close against.

The lower end of the handle *h* has a projecting annular rib, *m*, against which the fingers of the operator stop when the implement is in use, and a surrounding ferrule, *b*, for adding sufficient strength to that part of the handle, and also for forming a stop and abutment for the collar *a* at that end of the spindle *c* to close against.

The lower or outer end of the spindle *c* projects beyond the end of the handle *h*, say one inch, (more or less,) and is curved around to one side, say about one-quarter of a circle, (more or less,) and is slotted in its outer end for the reception of the marking-wheel *r*, which is journaled in the said piece *c* at the sides of the said wheel-slot. There may be one or more of these marking-wheels used in the same implement. Where there are more than one used, they will be placed side by side, and the effect of their work will be to present a broad line, which can be seen at a distance when properly colored, as hereinafter described.

The peripheries of the marking-wheels are armed or provided with radially-projecting teeth or spurs, the outer ends of which are sharp-pointed, so as to readily penetrate the paper or other material of the pattern over which they are drawn.

These implements are intended for use in transferring to other objects any pattern outlining, lettering, or ornamental work that may be designed for transfer to garments, signs, or for any other purpose, and the patterns or designs so drawn are generally made on thin paper, and the mode of transferring them hitherto in use has been by the tedious and expensive use of a dotting-needle or the use of a complicated and expensive pattern-printing machine. After the outline of the pattern has been pricked through the paper by the use of this marking implement a coloring-matter may readily be dusted or stippled through the said perforations, and thereby clearly outline the required work for any plain or decorative purposes—such as marking out of garments,

embroidery, sign fresco, decorative, or other work.

By means of the spring *f* a light, easy, and uniform friction between the contacting surfaces of *a* and *b* is produced and maintained, and the change of the instrument to a new line is readily made without difficulty or jar. Furthermore, the pressure of the spring *f* prevents the small armed wheel *r* from taking an arbitrarily wrong direction whenever the pressure of the operator's hand is released, because to change the direction of the movement of the small wheel and its rotating spindle *c* the friction between the surfaces *a* and *b* must always first be overcome. The pressure of the spring *f* prevents also, at the lifting of the hand, a falling down of the wheel *r*, which otherwise has been found quite troublesome.

When using the machine, it is well to put the thumb, middle and index fingers on the rib *m* of the handle and the little finger as a support on the surface to be worked on. In this manner it is very easy to attain a vertical position of the spindle *c*, which position is required when using the instrument.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. An improved marking-wheel consisting of an operating-handle, a swivel-spindle, centrally seated therein, and allowed both a rotary and a longitudinal movement in the said handle, with a marking-wheel journaled in the outer end of the said swivel-spindle, all substantially as shown and described.

2. A handle, *h*, a central spindle seated therein and carrying at its outer end a marking-wheel, and the longitudinally-adjusting spring *f*, arranged to habitually throw the retaining-collar *a* of the spindle against the abutment-ferrule *b* at the outer end of the handle *h*, but so as to allow an outward movement of the said spindle when required, the whole arranged and combined substantially as shown and described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILH. HEIDENHAIN.

Witnesses:

B. ROI,

E. MEISTER.