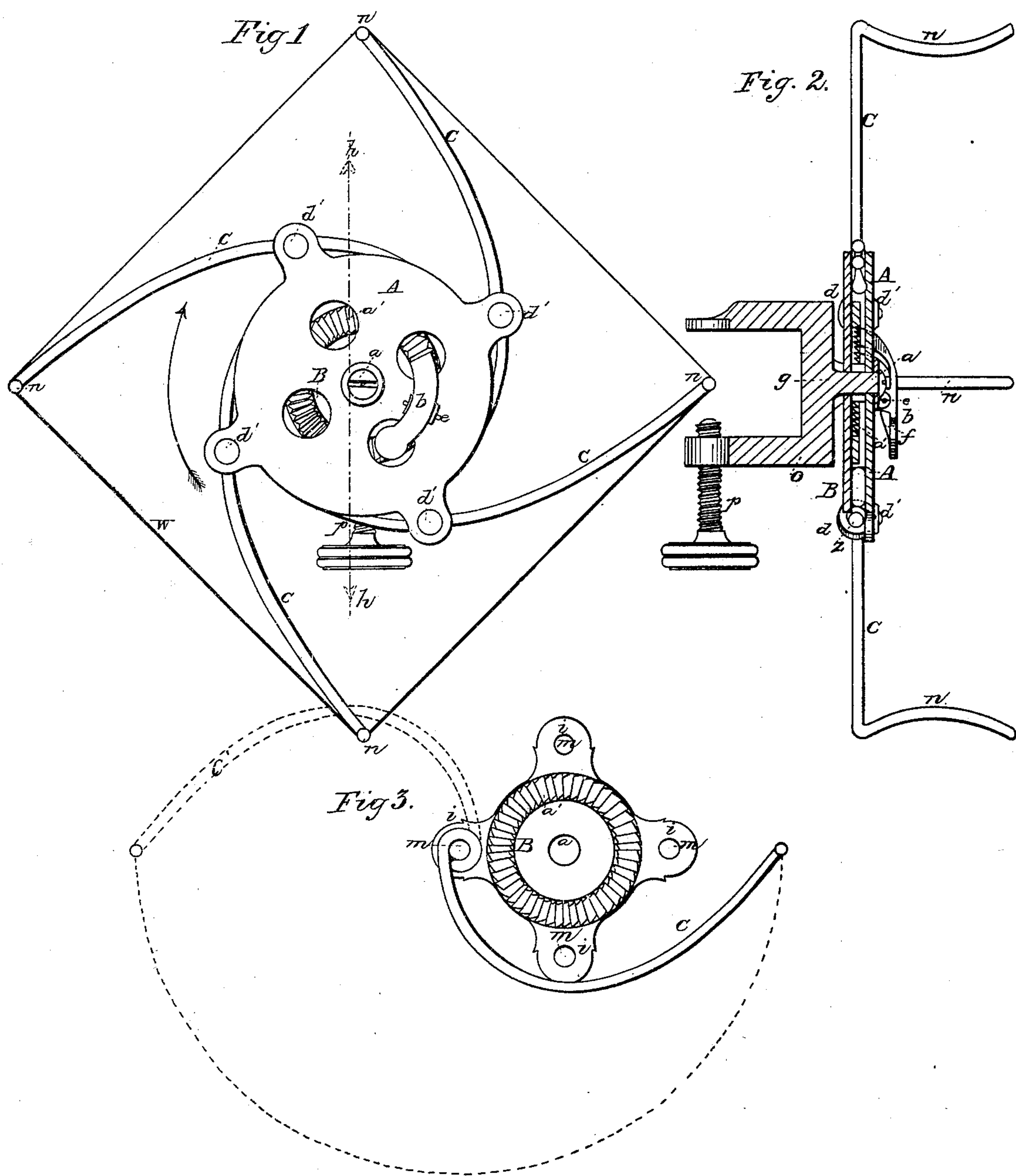


C. Krauer. Reel.

N^o 17,379.

Patented May 26, 1857.



UNITED STATES PATENT OFFICE.

CHRISTIAN KNAUER, OF PITTSBURGH, PENNSYLVANIA.

REEL FOR YARN OR THREAD.

Specification of Letters Patent No. 17,379, dated May 26, 1857.

To all whom it may concern:

Be it known that I, CHRISTIAN KNAUER, of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful machine, which I denominate a "Self-Adjusting Reel for Thread or Yarn," and the use of which is to facilitate the winding of yarns, silks, or other material; and I do hereby declare that the following is an exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure I is a front view, Fig. II is a sectional view, Fig. III is a view of back plate; which revolves upon its center, and is provided with a pawl, *b*, and also with flanges *d*, *d*, *d*, *d*, to each of which, is attached a swivel, *d'*, *d'*, as seen in Fig. II which are provided with holes, *z*, through which the arms *c*, *c*, *c*, *c*, travels.

B, as seen in Fig. III, is a back plate; which revolves upon its center, and is provided with a series of ratchet teeth, *a*, into which the pawl, *b*, enters and by which the plate, A, is secured with and revolves along with the plate B. It is also provided with flanges *i*, *i*, *i*, *i*, as shown separately in Fig. III, to which are secured pins *m*, *m*, *m*, *m*.

O, as seen in Fig. II, is a clamp; to which is attached the shaft, *g*, and into which, the screw, *a*, enters.

p is a set screw which passes through the clamp, O. The arrangement of the clamp O, is of such a nature, that by it with its attendant set screw *p*, the machine can be securely attached to a table, or its equivalent. As soon as thus secured, the operator places the yarn, or other material upon the wings *n*, *n*, *n*, *n*, of the arms *c*, *c*, *c*, *c*, in a loose condition; and in order to expand the arms *c*, *c*, *c*, *c*, to suit the diameter of the material in use, and make it form a tight band upon the wings *n*, *n*, *n*, *n*, the operator

secures the back plate, B, with the left hand; and turns the plate, A, forward with the right hand; which will produce the required expansion of the arms *c*, *c*, *c*, *c* and secure the yarn, or other material, upon the wings *n*, *n*, *n*, *n*. By the assistance of the pawl, *b*, falling in the ratchet teeth, *a*, it is now ready for feeding, or supplying the operator; the end of the yarn or other material is secured and he pulls toward him which will cause the plate A, and the plate, B, to revolve with each other, upon the shaft, *g*, and the process of unwinding or feeding is accomplished.

If the operator desires to free the material off from the wings *n*, *n*, *n*, *n*, the pawl *b* must be freed; and the plate, A, turned toward the operator. Fig. I shows the arms *c*, *c*, *c*, *c*, in a closed position as does Fig. II and Fig. III. By tracing the dotted lines in Fig. III, the facilities for expanding or contracting the arms *c*, *c*, *c*, *c*, will be at once apparent. The pins *m*, *m*, *m*, *m*, forming centers upon which the arms *c*, *c*, *c*, *c*, rotate, and flanges *d*, *d*, *d*, *d*, in plate, A, having swivels or guides through which said arms *c*, *c*, *c*, *c*, are guided. The backward or forward motion of the plate, A, upon the shaft, *g*, produces a concentric motion of said arms *c*, *c*, *c*, *c*, to or from the center.

What I claim and desire to secure by Letters Patent is—

The combination of the plates A and B provided with the ratchet *a'* and pawl *b*, the curved arms *c*, and swivel guides *d'* arranged and operating substantially as described for the purpose specified.

Sworn and subscribed to this 18th day of April 1857.

CHRISTIAN KNAUER.

In presence of—

I. DONALDSON,
J. V. DONALDSON.