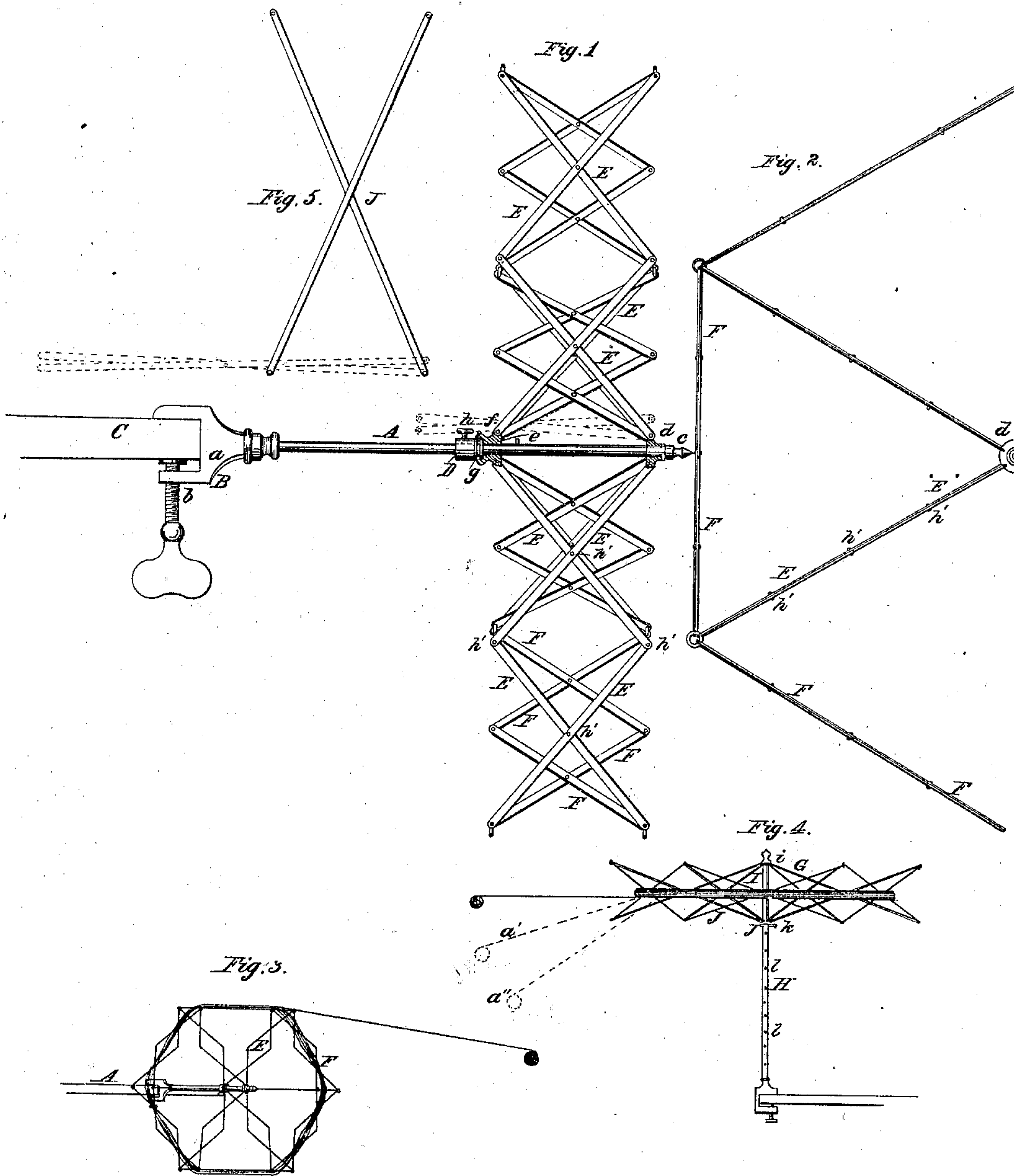


C. H. CARNES.
REEL.

No. 31,953.

Patented Apr. 9, 1861.



Witnesses:
H. Loomis
R. S. Spencer

Inventor:
Caroline H. Carnes
per Mammal &
Attorneys

UNITED STATES PATENT OFFICE.

CAROLINE H. CARNES, OF NEW YORK, N. Y.

REEL.

Specification of Letters Patent No. 31,953, dated April 9, 1861.

To all whom it may concern:

Be it known that I, CAROLINE H. CARNES, of the city, county, and State of New York, have invented a new and Improved Reel for
5 Winding Silk, Worsted, &c., from the Skein, said reel being especially designed for domestic use; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the
10 annexed drawings, making a part of this specification, in which—

Figure 1, is a side sectional view of my invention. Fig. 2, an end view of a portion of the same. Fig. 3, a diminished perspective view of the same. Fig. 4, a side elevation of a reel constructed in the ordinary way. Fig. 5, an enlarged side view of a portion of the same.

Similar letters of reference indicate corresponding parts in the several figures.

In the ordinary reel for domestic use, as hitherto constructed, there exists several objections; to wit, 1st, the varying of the position of the skein relatively with the winder,
25 by the adjustment of the reel to suit the size or diameter of the skein, said contingency being due to the length of the reel or to its folding strips. 2nd, the securing of the reel in a horizontal position which causes,
30 as the skein is being wound from the reel, an oblique draw, or a pull on the reel in an oblique direction with the plane of its rotation, thereby causing much friction and also in certain cases rendering the skein liable to
35 slip from the reel and become entangled, 3rd, the particular means employed for keeping the reel in proper position on its shaft or axis, said means tending to weaken the shaft and not admitting of the facile adjustment of the reel thereon.

The object of the within described invention is to obviate these difficulties and thereby obtain an article for the purpose specified, of much greater utility than those previously constructed, one which may be manipulated with greater facility and folded more compactly.

To enable those skilled in the art to fully understand and construct my invention I
50 will proceed to describe it.

A, represents a rod or shaft to one end of which a clamp B, is attached, said clamp being formed of a jaw or socket *a*, having a set screw *b*, passing into it. The jaw or
55 socket *a*, is in line with the rod or shaft A, and the set screw *b*, at right angles thereto

as shown in Fig. 1. This arrangement it will be seen admits of the shaft A, being secured to a table or any proper support C, in a horizontal position.

The outer end of the rod or shaft A, is provided with a knob *e*, and on the shaft there is placed loosely a collar *d*, which while being allowed to rotate freely on the shaft is not allowed to slide thereon. There
65 is also placed on said shaft A, a collar *e*, which is allowed to slide on the shaft as well as rotate thereon. The collar *e*, is connected by a pin *f*, to a slide G, said pin fitting in a groove *g*, made circumferentially in the
70 slide as shown in Fig. 1. The slide D, is provided with a set screw *h*, by which the slide may be retained at any desired point on the shaft.

To the collars *d*, *e*, there are attached levers E. These levers are crossed or connected at their ends and at their points of intersection or junction by rivets *h'*, precisely the same as the well known "lazy tong" arrangement. The outer ends of the
80 outermost levers E, are connected to similar levers E.

The levers E, may be described as forming the arms of a hexagonal drum, the levers F, forming its periphery. Each arm
85 is formed of two pairs of levers E, and each side of the face or drum is also formed of two pairs of levers F, as shown in Figs. 1, and 2. By this double arrangement of the levers E, F, the reel or drum may be ex-
90 panded or contracted by a short movement of the collar *e*, and consequently a short rod or shaft A, is only required and a reel of sufficient dimensions will be obtained that will be capable of folding within a very
95 small space as indicated in red Fig. 1. This limited movement of the collar *e*, on shaft A, not only admits of a portable device being obtained but also admits of the reel being expanded more or less to suit different
100 sized skeins without materially changing the position of the center of the reel on its shaft. This together with the horizontal position of the shaft A, will always enable a proper relative position to be obtained be-
105 tween the winder or operator and the reel, so that the skein may be wound from the reel from a more or less elevated point, but in a plane coincident with that of its rotation (see Fig. 3) thereby obviating all un-
110 necessary friction and embarrassment attending the reels as hitherto constructed

and arranged. The collar *e*, may be readily secured at any point on its shaft by simply adjusting the set screw *h*.

5 The ordinary reel *G*, is placed on a vertical shaft *H*, as shown in Fig. 4, and is composed of arms formed each of a single pair of levers *I*, and the sides or faces of the reel are also each formed of a single pair of levers *J*. The levers *I*, of the arms
10 are connected to collars *i*, *j'*, the sliding one *j'*, being secured at the desired points by a pin *k*, which passes through holes *l*, in shaft *H*, as shown in Fig. 4. This arrangement of the single levers it will be seen, in order
15 to obtain a reel as large as my improved one must have its levers just double the length; and, in order to adjust or expand and contract it, its collar *j'*, must be moved on its shaft just double the distance of mine *d*.
20 This of course involves the necessity of a long shaft *H*, and also causes the center of

the reel, where the skein is adjusted, to vary considerably in height according to the size of the skein, the latter being higher or lower according as the reel is adjusted 25 and in many cases causing the skein to be wound therefrom very obliquely to the plane of its rotation as shown at *a'*, *a''*, in Fig. 4, thereby causing considerable friction. 30

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

As an improved article of manufacture a reel composed of double pivoted levers 35 *E*, *F*, collars *d*, *e*, slide *D*, and shaft *A* and otherwise made as herein shown and described.

CAROLINE H. CARNES.

Witnesses:

WM. G. APPLETON,
STEPHEN SALISBURY.