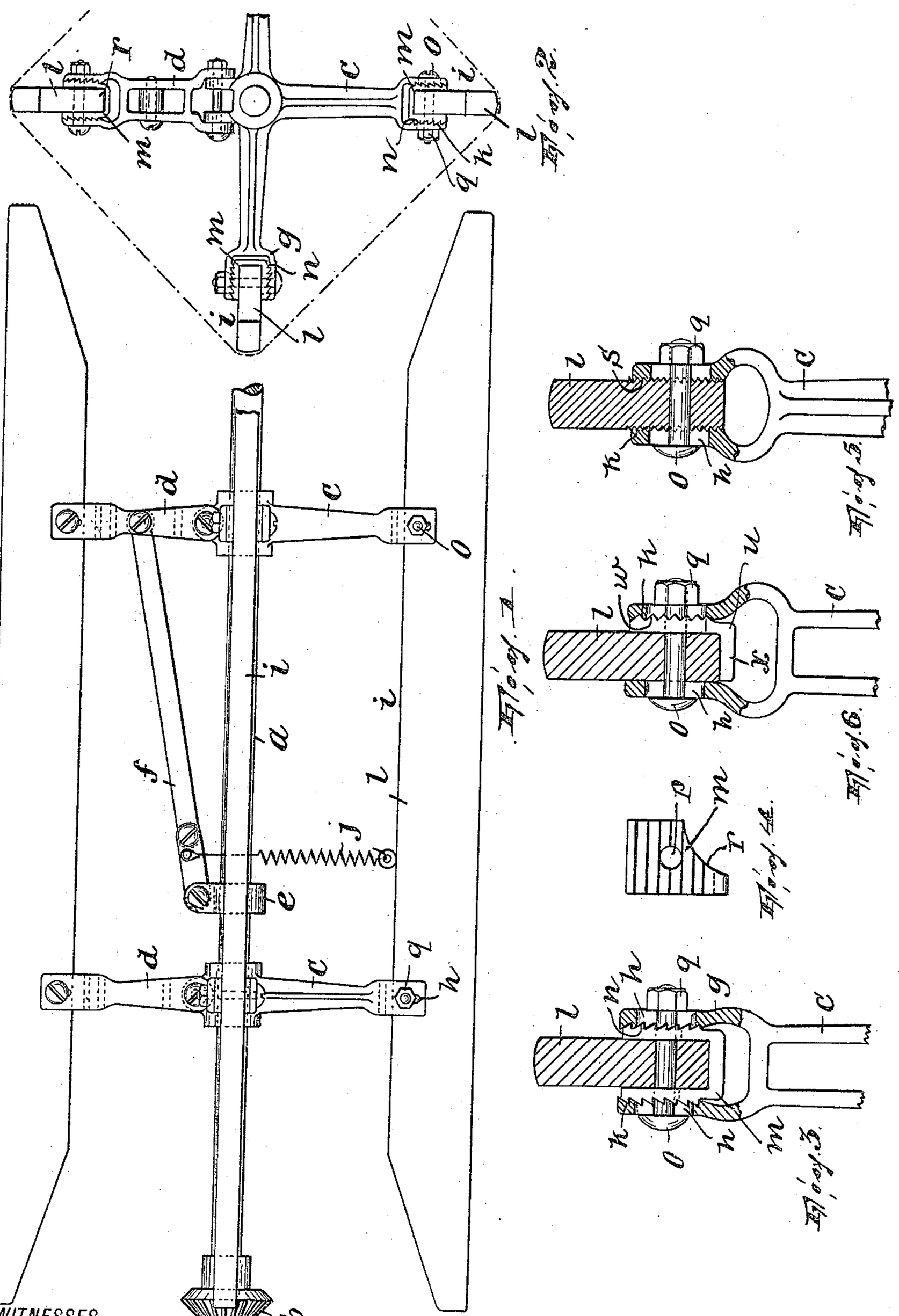
G. SIPP & A. McLANE.

REEL FOR REELING MACHINES.

APPLICATION FILED DEC. 12, 1908.

946,076. Patented Jan. 11, 1910.



UNITED STATES PATENT OFFICE.

ALEXANDER McLANE, OF LANSFORD, PENNSYLVANIA, AND GRANT SIPP, OF PATERSON, NEW JERSEY.

REEL FOR REELING-MACHINES.

946,076. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed December 12, 1908. Serial No. 467,182.

To all whom it may concern:

Be it known that we, ALEXANDER McLANE and GRANT SIPP, citizens of the United States, residing in Lansford, Carbon county, Pennsylvania, and Paterson, Passaic county, New Jersey, respectively, have invented a certain new and useful Improvement in Reels for Reeling-Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to reeling machines and it has for its principal object to provide in a reel for such machines a simple expedient whereby to compensate for the reduction in circumference which attends planing or otherwise smoothing down its blades to remove notches or other roughness produced by careless handling of the reel, it being apparent that when the blades of the reel are so planed or smoothed down it becomes impossible to continue to gage accurately the number of yards reeled off by the number of revolutions accomplished.

The invention consists, first, in a novel construction of a reel for reeling machines whereby adjustment of a blade thereof may be effected when the same has been planed or smoothed down in the manner above described and whereby, when such adjustment is effected, the blade will be held rigidly where adjusted; and, second, in the employment of a stirrup having a portion projecting into the radial plane of a blade for a reel for reeling machines and supporting the blade against inward radial movement relatively to the stirrup.

The invention will be found fully illustrated in the accompanying drawing, wherein,

Figure 1 is a side elevation of the improved reel; Fig. 2 an end view, showing a skein in dot-and-dash outline thereon; Figs. 3 and 4 detail views of what is shown in Figs. 1 and 2; and, Figs. 5 and 6 views of modifications.

The body of the reel comprises, as usual, the shaft *a* carrying a bevel-pinion *b*, the two spiders *c*, preferably four-armed, secured to the shaft and each having one of its arms *d* pivoted to swing on its inner end in a radial plane, the collar *e* fixed on said shaft, and a toggle lever *f* connecting one of said pivoted arms with the collar. The ends of the arms are forked, as at *g*, and these have the opposed radial slots *h*. In the manner to be described, the blades *i* are arranged in the recesses of the forked ends of the arms, and that blade which is mounted in the pivoted arms is normally held in the extended position by a spring *j* which connects the toggle with the opposite blade and acts to hold the toggle extended. The forked ends of the arms are toothed or serrated, as at *k*, on the inside thereof, crosswise of the length of the arms.

In Figs. 1 and 2, each blade member *i* comprises the blade proper *l* and metallic U-shaped stirrups *m* which are fitted over what is the inner edge of the blade proper when the blade member is in proper position as a part of the reel; the stirrups *m* are serrated on their outer faces, as at *n*, being adapted to be received by the forked ends of the arms and to have their serrations mate with those of the forked portions of the arms. Bolts *o* are extended through the slots *h* and holes *p* in the stirrups, nuts *q* being screwed on the bolts and coöperating therewith to clamp the blade members in the arms.

In order to provide clearance sufficient to allow the collapsing of the reel with respect to the pivoted arms, the stirrups for the blade member carried by said pivoted arms are cut away on one side, as shown at *r* in Fig. 4.

In Fig. 5, the stirrup is omitted, the blade (made, say, of aluminum) being provided with serrations *s* mating with the serrations *k* of the arms *c*.

In Fig. 6, the stirrup *u* is L-shaped, one leg thereof lying between one side face of the blade *l* and the adjoining part of arm *c* and having serrations *w* mating with those *k* of said arm and the other leg *x* projecting into the radial plane of, and thus supporting, the blade, as shown.

It will be understood that the serrations may have any suitable form.

In the use of this construction of reel, individual adjustment of the blade members radially is possible for any purpose, as that particularly above mentioned, and when the blade members have been so adjusted they

will be positively and squarely held in the relative positions assigned to them in the arms of the reel, notwithstanding jars, or other influences tending to disturb their adjustment.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In a reel, the combination of the reel body, blade members arranged in the reel body substantially parallel with its axis, one blade member and portions of the reel body having serrated faces in contact with each other, and means for clamping said blade member against said portions of the reel body, substantially as described.

2. In a reel, the combination of the reel body, blade members arranged in the reel body substantially parallel with its axis, said reel body having forked portions receiving one blade member and said blade member and the corresponding forked portions having their adjoining faces serrated, and one of them having radial slots, and bolts penetrating the forked portions and the blade member, said slots receiving the bolts, substantially as described.

3. In a reel, the combination of a reel arm, a blade, and a stirrup, the stirrup having contact with the relatively inner face and a radial face of the blade, and means for securing the arm, blade and stirrup together, substantially as described.

4. In a reel, the combination of a reel arm, a blade, and a stirrup, the stirrup having contact with the relatively inner face and a radial face of the blade and the stirrup being adjustable relatively to the arm, and means for securing the arm, blade and stirrup together, substantially as described.

5. In a reel, the combination of a reel arm, a blade, and a stirrup, the stirrup having contact with the arm and also with the relatively inner face of the blade, the contacting faces of the stirrup and arm being serrated, and means for clamping the arm, blade and stirrup together, substantially as described.

6. In a reel, the combination of a reel arm, a blade, and a stirrup, the stirrup having a portion projecting into the radial plane of the blade and supporting the same against inward radial movement relatively to the stirrup, and means for securing the blade, stirrup and arm together, substantially as described.

7. In a reel, the combination of a reel body, blade members arranged in the reel body substantially parallel with its axis, said reel body having forked portions receiving one blade member and said blade member comprising the blade proper and stirrups receiving the blade-proper, and bolts penetrating said forked portions and the stirrups of said blade member, each forked portion and stirrup having their adjoining faces serrated and one of them having a radial slot receiving the corresponding bolt, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this fourth day of December, 1908.

ALEXANDER McLANE.

Witnesses:
OSCAR RUDNEE,
JAMES P. BULMER.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of December, 1908.

GRANT SIPP.

Witnesses:
JOHN W. STEWARD,
WM. D. BELL.