Oct. 27, 1925. 1,559,133

H. B. TUNIS ET AL

FOLDING REEL

Filed July 14, 1925

Fig. 1.

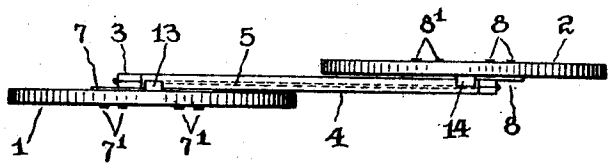


Fig. 2.

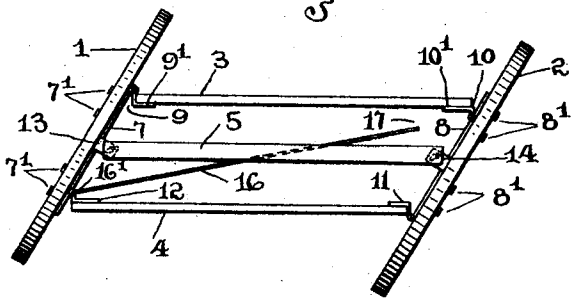


Fig. 3.

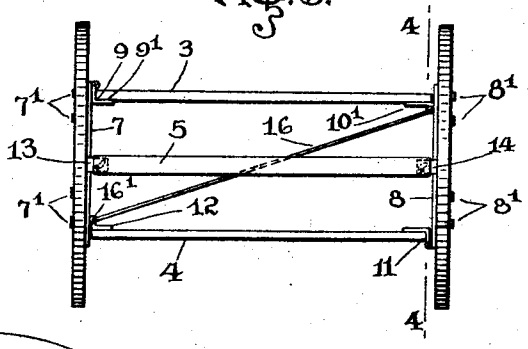


Fig. 4.

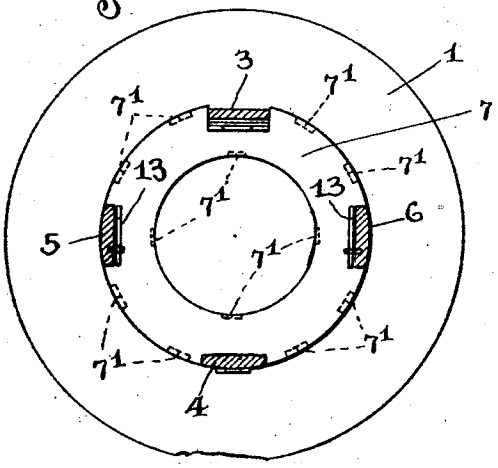
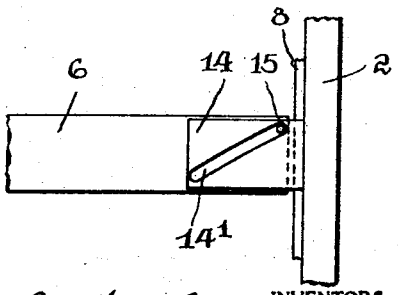


Fig. 5.



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Patented Oct. 27, 1925.

1,559,133

UNITED STATES PATENT OFFICE.

HAROLD B. TUNIS AND MATTHEW P. GEENE, OF PASSAIC, NEW JERSEY.

FOLDING REEL.

Application filed July 14, 1925. Serial No. 43,500.

To all whom it may concern:

Be it known that we, HAROLD B. TUNIS and MATTHEW P. GEENE, citizens of the United States, residing at the city of Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Folding Reels, of which the following is a specification.

Our invention relates to improvements in folding reels and the object of our invention is to provide a simple and convenient reel which may be folded for storage, shipment and the like.

We accomplish this object by the device illustrated in the accompanying drawings, in which

Figure 1 is a view of the device folded,

Figure 2 is a view of the reel with lock released and in process of being folded,

Figure 3 is a view of the reel in position for use,

Figure 4 is a section on the line 4—4 in Figure 3, and

Figure 5 is a detail of one of the ears carrying the side slats.

Similar characters of reference refer to similar parts throughout the several views.

Our improved reel includes two counterpart heads 1 and 2, with a four part shank between the heads.

These counterpart heads 1 and 2 are preferably circular to serve as traction wheels upon which the device may be conveniently moved.

The four part shank preferably includes four slats 3, 4, 5 and 6 of which the opposite slats 3 and 4, and 5 and 6 are counterparts.

On the inner face of each of the heads 1 and 2, we provide plates 7 and 8 respectively, which may be secured to the said heads by means of integral prongs 7^1 and 8^1 cut out of the plates 7 and 8 respectively and driven into the heads but any convenient attaching means may be used as desired. These attaching plates 7 and 8 are counterparts but are positioned in inverted relation to each other.

Two of the slats 3 and 4, which for convenience of reference we will refer to as the top and bottom slats respectively as they are shown in that position in the drawings, are supported by hinges on the plates 7 and 8 respectively, one leaf of the hinge being formed by the said plates. These hinges are so arranged that the heads may be folded in one direction only.

In the position shown in the drawings, as above stated, the hinge at the left end of the upper slat 3 includes, as one leaf, the upper marginal edge of the plate 7 which is bent over for that purpose, the other leaf 9 being L-shaped having its end section 9^1 bent over to embrace the end of the slat 3 to which it is secured in any desired manner, the hinge joint being above the rail or slat 3. The hinge joint at the right of the upper slat 3 as shown in the drawings is positioned beneath the slat 3 and comprises a leaf 10 hinged to the plate 8 and having an end section 10^1 bent over to engage the slat 3 on its under side.

The slat 4, at the lower side of the reel when in the position shown in the drawings, is hinged to the plates 7 and 8 respectively, in like manner as above described but the arrangement of the hinges is reversed. The hinge at the right hand side of the lower slat 4 being a counterpart of the hinge 9 at the left side of the upper slat 3, as above described, the relative position of the hinges being such that the reel may be folded in one direction only.

On the periphery of the plates 7 and 8 respectively midway of the points of attachment of the slats 3 and 4, we provide outstanding lugs or ears 13 and 14 respectively, to carry the side slats or rails 5 and 6. These lugs 13 and 14 are provided with curved slots 14^1 in which retaining pins 15 on the slats 5 and 6 respectively are seated. The curve of the slots 14^1 are so formed as to permit the pins 15 to travel therein from end to end as the heads 1 and 2 are folded and to form a sliding attachment for the side slats 5 and 6.

The device being thus assembled, the heads 1 and 2 may be readily folded down into approximately a parallel position and the slats 3, 4, 5 and 6 will conveniently nest between the heads as shown in Figure 1.

It is desirable to lock the device in its normal erect position for use as shown in Figure 3 and for this purpose we provide a brace or arm 16 normally extending diagonally of the device. A bent over end section 16^1 of this brace 16 may conveniently form a pin for the hinge 12 and the free end section 17 of the brace 16 may be bent over to be seated in the socket of the hinge

10 but any other arrangement of the brace 16 may be made without departing from the spirit of our invention.

Having thus described our invention, what we claim is:

1. In a device of the character described, the combination of two heads, a pair of slats secured to the heads, hinges connecting the slats and the heads and adapted to permit the heads to fold in parallel relation and slats intermediate the said hinged slats and adapted to fold therewith.

2. In a device of the character described, the combination of two heads, a pair of hinged slats therebetween and adapted to permit the heads to fold in parallel relation, a pair of slats intermediate the said hinged slats and a cross brace adapted to lock the heads in fixed relation.

3. In a device of the character described, the combination of two heads, plates thereon, a pair of slats hinged to the plates, a pair of slats intermediate the said hinged slats, means on the plates for flexibly attaching the said last mentioned slats and means for locking the heads in fixed relation.

4. In a device of the character described, the combination of two heads, slats hinged between the said heads, lugs on the said heads intermediate the said hinged slats, slots in the said lugs, slats extending between the said lugs and pins therein seated in the said slots.

5. In a device of the character described, the combination of two heads, slats hinged between the said heads, lugs on the said heads intermediate the said hinged slats, slats extending between the said lugs and means for locking the said heads in fixed relation.

In testimony whereof, we have signed our names to this specification this 29 day of June, 1925.

MATTHEW P. GEENE.
HAROLD B. TUNIS.