P. EIBERLE.

HAIR BRAIDING OR WEAVING APPARATUS.

APPLICATION FILED DEC. 17, 1912.

1,107,052. Patented Aug. 11, 1914.

Fig. 1.

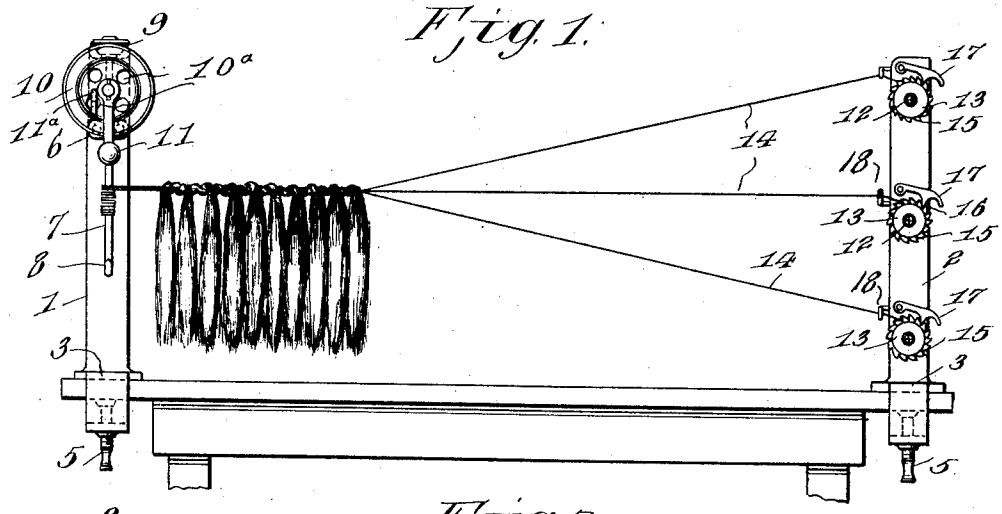
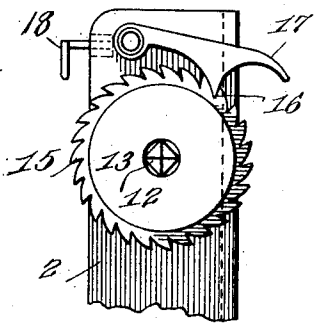


Fig. 4



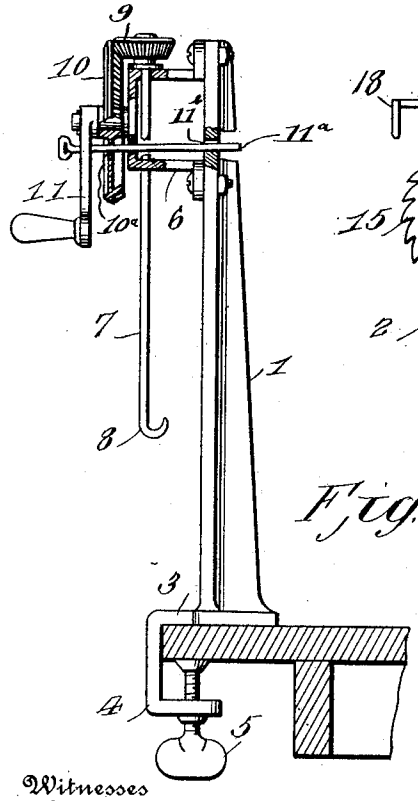


Fig. 3.

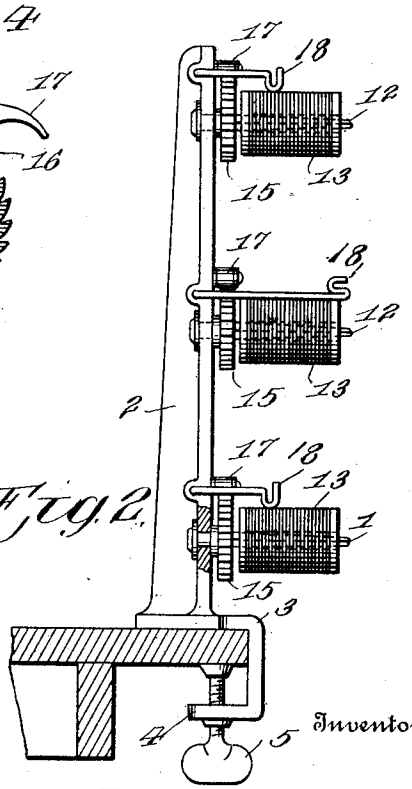


Fig. 2.

Witnesses

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HAIR BRAIDING OR WEAVING APPARATUS.

1,107,052. Specification of Letters Patent. Patented Aug. 11, 1914.

Application filed December 17, 1912. Serial No. 737,267.

To all whom it may concern:

Be it known that I, PAUL EIBERLE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Hair Braiding or Weaving Apparatus, of which the following is a specification.

This invention relates to a hair braiding or weaving apparatus, particularly designed for use in the manufacture of false hair, wigs, and other similar purposes, the object of the invention being to provide an apparatus of this character which is simple of construction and embodies component parts which are adapted for ready and convenient application to a work bench or table.

A further object of the invention is to provide an apparatus of this character which embodies a novel construction of winder, means for operating the winder, and means for locking said operating means to hold the winder against retrograde rotation.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side view showing the apparatus as applied to a work bench or table. Fig. 2 is an end elevation of the thread supporting bracket. Fig. 3 is a similar view of the bracket which carries the braid take-up or winding stem. Fig. 4 is a detail view on an enlarged scale of a portion of the spool supporting bracket and one of the spindles carried thereby.

Referring to the drawing, 1 and 2 designate a pair of supporting standards, each of which is provided at its lower end with suitable means for clamping it to the projecting edge of the top of a work bench or table. In the present instance each standard is shown as provided with a substantially U-shaped base portion, embodying an upper clamping arm 3 adapted to rest upon the table and a lower bearing arm 4 adapted to project beneath the top of the table, which arm 4 carries a clamping screw or device 5 of any suitable construction.

The standard 1 is provided with a bearing bracket 6 in which is revolubly mounted a vertically disposed winding stem 7 having a hooked lower end 8. The upper end of this stem carries a beveled pinion 9 meshing with a beveled drive gear 10 journaled on said bracket 6, which drive gear may be operated by any suitable means, such as a hand crank 11. The gear 10 is provided with an annular series of openings 10^a for passage of a fastening pin 11^a adapted to be inserted into a keeper opening 11^b in the standard 1, whereby said gear and the winder are locked from rotation.

The standard 2 carries a series of superposed tapered spindles 12, each adapted to support a spool 13, from which spools the binding or holding threads 14 are fed. Each spindle carries a ratchet wheel 15 adapted to be engaged by the beveled tooth 16 of a pivoted gravity dog 17. This dog is adapted to hold the spool normally stationary, to maintain the threads under the desired tension, while permitting the spool to be turned rearwardly to take up any slack, and tension the thread whenever required. Guides 18 of a suitable character are arranged upon the standard 2 in advance of each spindle, to guide the threads on their feed motion. The tapered spindles are of angular form to receive and fixedly support spools of different sizes, as will be readily understood.

In operation, the threads are drawn from the spools, knotted in the usual manner and fastened to the winder stem, after which the batches of hair are woven in between them in a manner well understood in the art. After a braid of the maximum length allowed by the relationship of the proximate ends of the threads is made, the dogs are retracted, the fastening pin released and the stem 7 turned to wind up the braid and feed the threads forward for the weaving of another portion of braid; the dogs are then reset and the threads retensioned and the weaving operation proceeded with as before. As soon as the stem 7 has taken up its full capacity of braid and the threads have been braided to the full limit, the forward length of braid is removed from the stem, the threads broken to sever the same therefrom, the braid threads knotted to confine the hair, and the free ends of the threads, from the spools again knotted and connected with the stem for a repetition of the operation above described. By disposing the standards a greater or less length apart, the amount or length of braid which may be made at any given time prior to severance from the threads may be varied;

as will be readily understood. It will be understood, of course, that the hook 8 retains the forward braid in position upon the winding stem and prevents its casual disengagement.

It will be seen that the construction described provides a portable hair braiding or weaving apparatus which may be mounted upon an ordinary bench or table, which is simple, reliable and efficient in operation, and which may be compactly packed for storage or transportation.

I claim:—

In a hair braiding or weaving apparatus, a supporting standard having a locking opening therein, a vertically disposed winder stem journaled upon the standard, said stem being provided with a hooked lower end, a gear upon said stem, a drive gear journaled on the standard and meshing with the aforesaid gear, said drive gear having a plurality of openings therein, means for operating the drive gear, and a locking element adapted to be passed through one of the openings in the drive gear and the said locking opening to lock the gear against rotation.

In testimony whereof I affix my signature in presence of two witnesses.

PAUL EIBERLE.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."