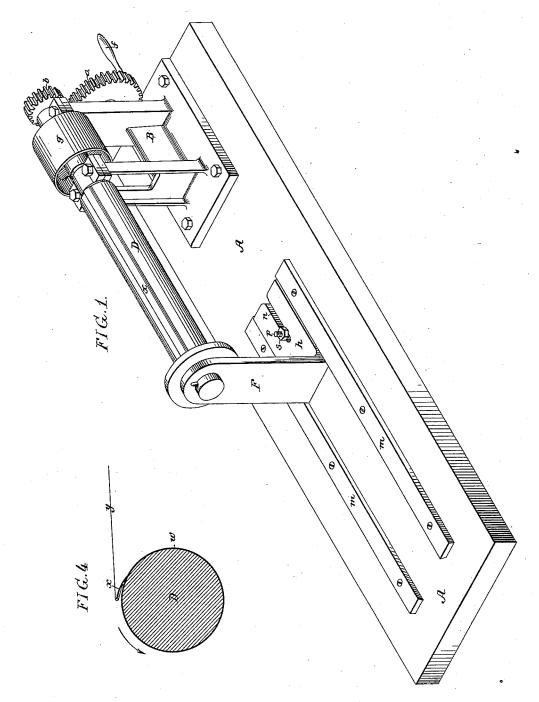
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DEVICE FOR MAKING MINERS' SQUIB HOLDERS.

No. 343,864.

Patented June 15, 1886.



Witnesses: John E. Parker Alex. Barkoff Inventor:
Hugh Stride
by his Attorneys

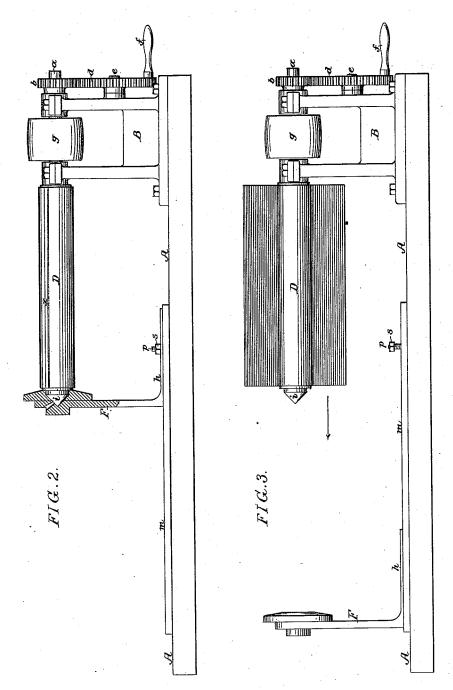
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United States Patent Office.

HUGH STRIDE, OF MAHANOY CITY, PENNSYLVANIA.

DEVICE FOR MAKING MINERS' SQUIB-HOLDERS.

SPECIFICATION forming part of Letters Patent No. 343,864, dated June 15, 1886.

Application filed February 8, 1886. Serial No. 191,175. (No model.)

To all whom it may concern:

Be it known that I, Hugh Stride, a citizen of the United States, residing in Mahanoy City, Schuylkill county, Pennsylvania, have invented a certain Improved Device for Making Miners' Squib-Holders, of which the fol-

lowing is a specification.

My invention relates to a machine for winding a strip of paper into the form of a roll, so as to form a miner's squib-holder of the character shown in my Letters Patent No. 328,358, dated October 13, 1885, my invention comprising certain details, described hereinafter, in the construction of the machine, with the view of permitting the ready removal of the roll of paper from the winding-mandrel, and of providing the latter with a strong projecting tongue or flap for receiving and retaining the folded front end of the strip of paper which is to be wound upon the mandrel.

In the accompanying drawings, Figure 1 is perspective view of a winder embodying my invention; Fig. 2, a side view, partly in section, showing the parts in position to begin the winding operation; Fig. 3, a similar view showing the parts adjusted to permit the removal of the roll from the mandrel after the winding operation has been completed, and Fig. 4 an enlarged section of the winding man-

30 drel.

A is the base-plate, to which is suitably bolted a frame, B, having bearings for the shaft a of a winding-mandrel, D, said shaft having a spur-pinion, b, which gears into a 35 spur-wheel, d, hung to a stud, e, on the frame B, and having a handle, f, by which it may be operated. The shaft a is also provided with a pulley, g, which may receive a belt from any adjacent power-driven counter shaft when it is 40 desired to run the machine by power. The outer end of the mandrel has a center pin, i, which is adapted to a bearing in a tail-stock, F, the base h of the latter being adapted to under-cut guides m on the base A, and having 45 a slot, n, for the reception of a bolt, p, a nut, s. on which serves to secure the tail-stock when the latter is adjusted to the position shown in Figs. 1 and 2, so as to provide a bearing for the center pin, i, of the mandrel. The mandrel D has a covering, w, of sheet 50 metal, one end of which overlaps the opposite end, but is free from contact therewith at the outer edge, so that it forms a projecting flap, x, beneath which may be inserted the front edge of the strip y of paper, which is to be 55 wound into the form of a roll, the strip being then bent back over the flap, as shown in Fig. 4, prior to the winding of the roll by the rotation of the mandrel in the direction of the arrow shown in said figure. A firm grip of 60 the mandrel upon the paper strip is thereby insured, and the release of the strip or the slipping of the same circumferentially upon the mandrel during the winding operation is effectually prevented. When the roll has been 65 wound, and has to be removed from the mandrel, the tail-stock F is retracted, as shown in Fig. 3, so that the roll can be removed from the mandrel in the direction of the arrow, the tail-stock being then readjusted to the position 70 shown in Figs. 1 and 2, prior to the winding of another roll. The retaining flap x consists of a strip integral with the sheet-metal covering w of the mandrel, as the latter can be more firmly secured to the mandrel than a narrow 75 strip such as that forming the flap.

I claim as my invention--

1. The combination of the mandrel, its shaft, and bearings therefor, means for rotating the mandrel, the tail-stock forming a bearing for 80 the outer end of the mandrel and having a base, h, longitudinal guides for said base, and means for securing the tail-stock in position when adjusted to form a bearing for the mandrel, all substantially as specified.

2. The mandrel having a sheet-metal cover, w, and retaining-flap x, integral therewith, all

substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two sub- 9c scribing witnesses.

 $\begin{array}{c} \text{HUGH} \underset{\text{mark.}}{\overset{\text{his}}{\times}} \text{STRIDE.} \end{array}$

Witnesses:

Anan Carney, John W. Stone.