

S. N. PAQUETTE.
BOBBIN STRIPPER FOR FILLING REPLENISHING LOOMS.
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982,741.

Patented Jan. 24, 1911.

Fig. 1.

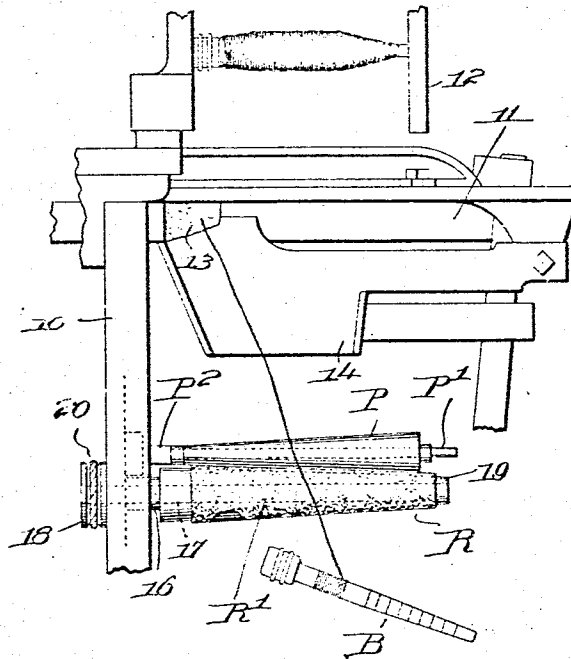


Fig. 2.

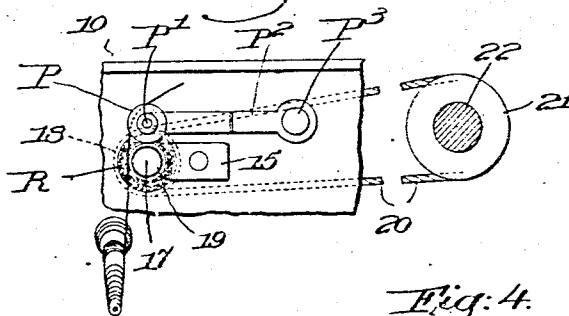


Fig. 3.

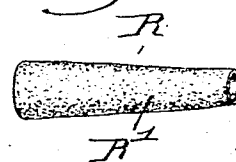
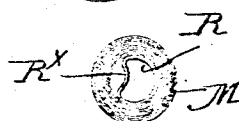


Fig. 4.



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UNITED STATES PATENT OFFICE.

SEVERIN N. PAQUETTE, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

BOBBIN-STRIPPER FOR FILLING-REPLENISHING LOOMS.

982,741.

Specification of Letters Patent. Patented Jan. 24, 1911.

Application filed February 2, 1910. Serial No. 541,418.

To all whom it may concern:

Be it known that I, SEVERIN N. PAQUETTE, a subject of the King of Great Britain, and resident of Lowell, county of Middlesex, State of Massachusetts, have invented an Improvement in Bobbin-Strippers for Filling-Replenishing Looms, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object the production of novel and effective means for stripping or unwinding the yarn from the bobbins discharged or ejected from the shuttle in a loom provided with filling replenishing mechanism, whereby the stripped yarn can be easily and quickly removed from time to time.

My invention is an improvement on the apparatus forming the subject matter of United States Patent No. 890,865 granted to F. W. Moore, June 16, 1908. In such patented apparatus the stripped yarn is collected on a receiving bobbin removably mounted on a rotatable spindle, and the yarn mass clings tightly thereto, sometimes making it hard to remove it, and as the smooth base surface of the receiving bobbin will not catch the yarn from a discharged bobbin it is customary for the weaver to first wind a layer of yarn upon the receiver, or the latter may be covered with cloth. When covered with cloth the collected yarn mass clings so tightly that it can only be removed by cutting, and if a layer of yarn is first wound upon the receiver the difficulty experienced in removing the yarn mass is not greatly diminished. In my present invention I overcome these objections by providing the rotatable spindle with a removable, tubular yarn-receiver of flexible material having a roughened yarn-engaging surface, the receiver with the yarn-mass thereon being readily slipped off the spindle, after which the receiver can be compressed or collapsed and drawn out of the yarn mass.

The novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a front elevation of a portion of the filling replenishing side of an auto-

matic loom with one embodiment of my invention applied thereto; Fig. 2 is a left hand side elevation of the bobbin stripper, with the driving means therefor indicated; Fig. 3 is a perspective view of my improved yarn-receiver, detached; Fig. 4 is an end view of the yarn-receiver, compressed or collapsed to facilitate its withdrawal from the yarn-mass thereon.

In Fig. 1, 10 is the side frame of the loom, 11 is the lay, 12 is a part of the magazine or battery for the reserve supply of bobbins, and 13 is a clearer cloth, mounted on the lay, all substantially as in the Moore patent referred to. On the loom side 10 below and in front of the usual discharge chute or guide 14 I mount a bracket 15 which has a bearing 16 for a substantially horizontal shaft 17 extended through an opening in the loom-side and provided at its inner end with a pulley 18, while upon the outer end of the shaft is fixedly secured a conical spindle 19. The spindle is conveniently rotated by means of a belt or band 20 passed around the pulley 18 and driven from a pulley 21 on the main shaft 22 of the loom.

Upon the spindle 19 I removably mount a correspondingly tapered yarn-receiver R, Fig. 3, made of suitable flexible or compressible material and having a roughened yarn-engaging surface R'. This yarn-receiver can be conveniently made of felt, heavy cloth, or other suitable material which will, when pushed onto the spindle 19 cling thereto, but which when removed may be readily collapsed or compressed by slight pressure.

The discharged bobbins B are ejected from the shuttle in such manner that the most of the ends of the yarn remaining upon such bobbins will engage the clearer cloth 13, holding the ends back, but the bobbin drops and carries the end across the yarn-receiver R, as shown in Figs. 1 and 2, and as the latter rotates its roughened surface R' will catch the yarn and wind it upon the receiver. Continued rotation of the spindle and the receiver thereon winds the remainder of the yarn upon the receiver as it is unwound from the discharged bobbin. When a sufficient quantity of yarn has been collected upon the receiver R the latter, with the yarn-mass M, Fig. 4, is withdrawn from the spindle 19 and the receiver is compressed

or pinched to collapse it, as shown at R*, Fig. 4, whereupon it can be instantly and easily withdrawn from the yarn-mass and replaced upon the spindle.

To compress the yarn as it collects upon the receiver R I have provided a conical presser-roll P, reversed with relation to the taper of spindle 19, and rotatably mounted on a shaft P' which extends horizontally from a swinging support P² fulcrumed at P³ on the loom side 10.

As shown in Figs. 1 and 2 the presser-roll rests by its own weight upon the yarn-receiver and the yarn collecting thereupon, and compresses the yarn as it is wound on the receiver.

By the reversed arrangement of the conical members 19 and P the latter tends to assist in retaining the yarn-receiver R upon the spindle until it is positively withdrawn therefrom by the attendant.

The collapsibility of the yarn-receiver enables it to be quickly and easily withdrawn from the yarn-mass collected upon it, and its conical shape provides for a snug and effective frictional engagement or grip upon the conical rotating spindle when in use.

Having fully described my invention, what

I claim as new and desire to secure by Letters Patent is:—

1. The combination, with a filling-replenishing loom, of a yarn-stripper for the discharged bobbins, comprising a rotatable spindle, and a readily collapsible yarn-receiver of soft textile material removably mounted on said spindle, and having a roughened surface to engage the yarn on a discharged bobbin.

2. In a yarn-stripper for the discharged bobbins of a filling-replenishing loom, a rotatable, conical spindle, a reversely-coned presser-roll, a swinging support therefor, and a readily collapsible, soft and flexible yarn-receiver removably mounted on the spindle and having a permanent and roughened yarn-engaging surface, the presser roll bearing on the yarn-mass as it collects upon the yarn-receiver.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

SEVERIN N. PAQUETTE.

Witnesses:

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