

**No. 619,682.**

Patented Feb. 14, 1899.

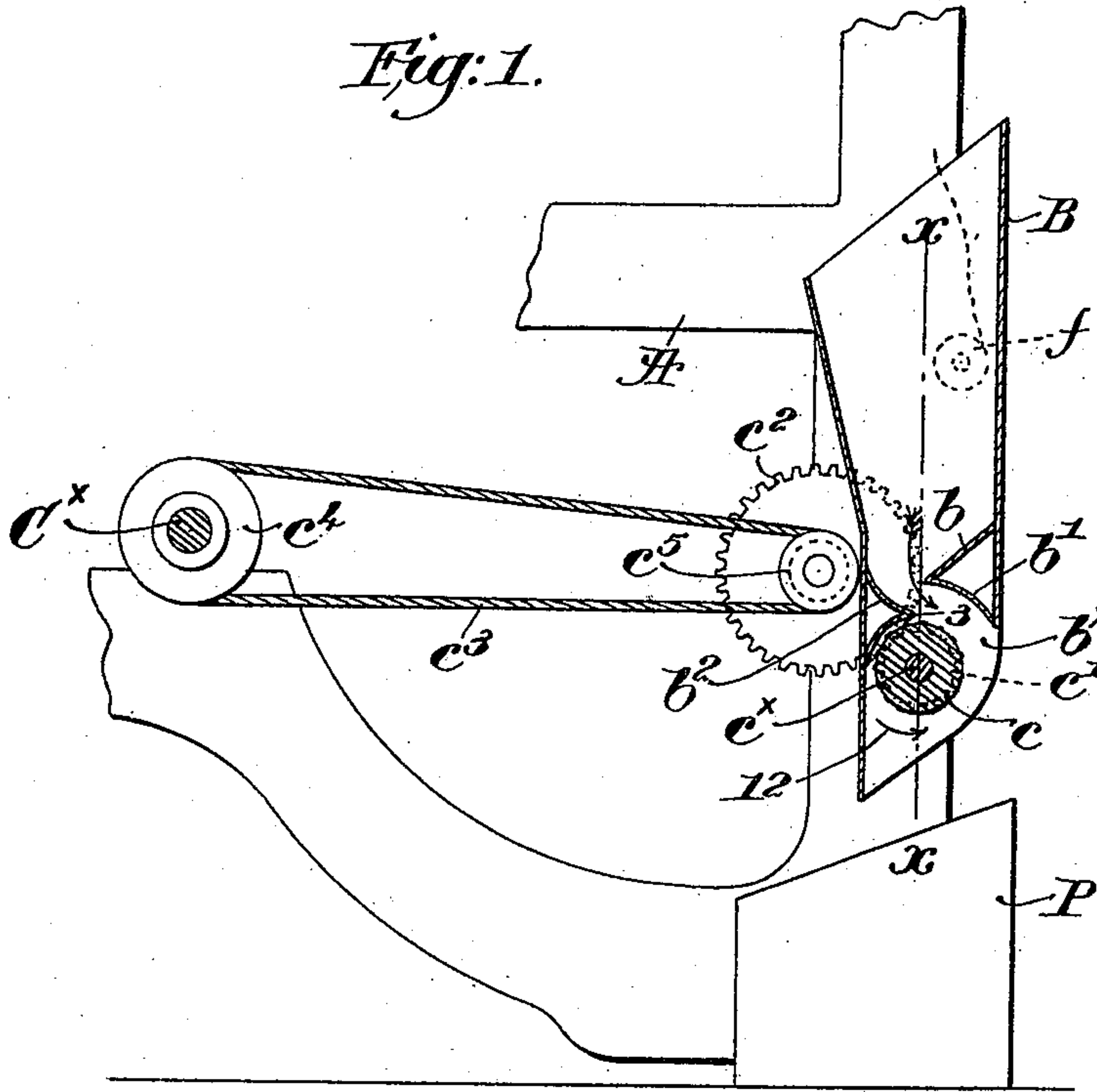
**W. G. EATON.**

## DEVICE FOR REMOVING WASTE YARN FROM FILLING CARRIERS.

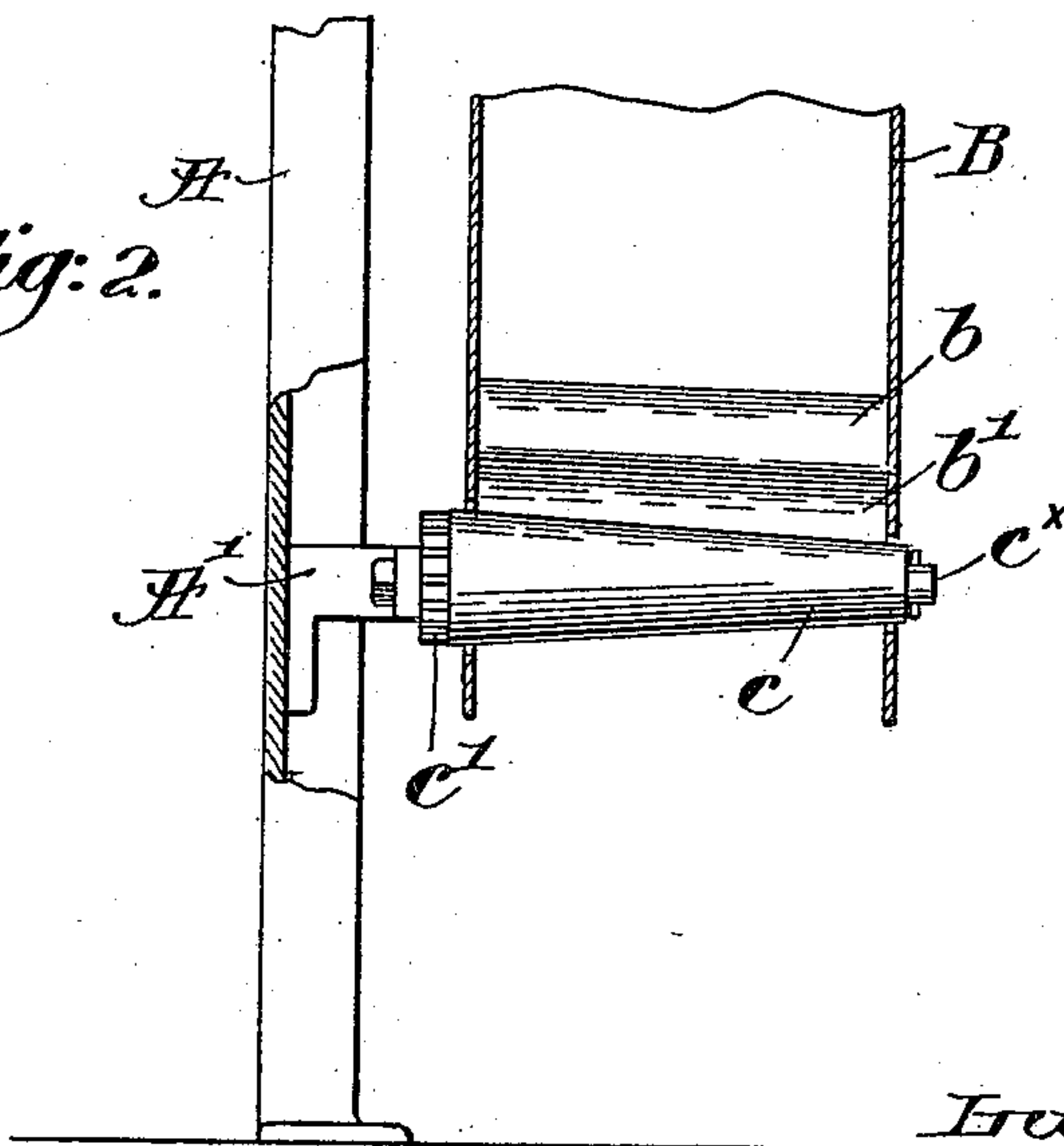
(Application filed Sept. 29, 1898.)

(No Model.)

*Fig: 1.*



*Fig: 2.*



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# UNITED STATES PATENT OFFICE.

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DEVICE FOR REMOVING WASTE YARN FROM FILLING-CARRIERS.

SPECIFICATION forming part of Letters Patent No. 619,682, dated February 14, 1899.

Application filed September 29, 1898. Serial No. 692,209. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIE G. EATON, of Nashua, county of Hillsborough, State of New Hampshire, have invented an Improve-  
5 ment in Devices for Removing Waste Yarn from Filling-Carriers, of which the following description, in connection with the accom-  
panying drawings, is a specification, like let-  
ters and figures on the drawings representing  
10 like parts.

In that type of loom wherein provision is made for automatically supplying the shuttle with fresh filling upon failure or more or less partial exhaustion of the filling the incoming  
15 filling-carrier displaces one in the shuttle and the ejected filling-carrier falls or is directed to a suitable pan or receptacle. These ejected filling-carriers usually have a little yarn remaining upon them, as in some looms  
20 of the type referred to—such, for instance, as shown in United States Patent No. 527,014, dated October 2, 1894—the change of filling is purposely effected while there is some yarn still on the ejected bobbin or filling-carrier.  
25 Obviously such bobbins must be stripped of the yarn so remaining upon them, and this stripping has heretofore been effected by hand.

This invention has for its object the pro-  
30 duction of means for mechanically stripping the filling-carriers, so that when they are finally collected they will be clean and ready for rewinding without further handling.

Figure 1 in elevation and partial section  
35 illustrates a stripping device embodying my invention, shown in connection with a loom; and Fig. 2 is a partial sectional view of the device on the line  $x x$ , Fig. 1, looking to the right.

40 I have herein shown my invention as used in connection with such a loom as forms the subject-matter of United States Patent No. 553,814, dated January 28, 1896, to which reference may be had, and the stripping device  
45 is mounted on the loom side A at that side of the loom adjacent the filling-changing mechanism.

A stand A', secured to the loom-frame, supports an upright hopper B, into the open top  
50 of which the ejected filling-carriers  $f$  (see

dotted lines, Fig. 1) pass, the said hopper having at or near its delivery end a contracted delivery-throat  $b^x$ , the upper concave wall  $b'$  thereof extending from the lower edge of an inclined shelf  $b$  to the outer wall of the hop- 55  
per. The lower or opposite wall of the throat is formed in part by a rotatable roll  $c$ , mounted on a stud  $c^x$ , attached to the stand A', said roll extending across the hopper, as shown in Fig. 2. Above the roll, on the inner side of 60  
the hopper and completing the throat-wall, I have located a combined guard and guide, shown as a concave plate  $b^2$ , the edge 3 thereof clearing the top of the roll and being below the edge of the shelf  $b$ . A pinion  $c'$  on 65  
the roll  $c$  is in mesh with a gear  $c^2$ , rotated in suitable manner from one of the continuously-rotating shafts of the loom, as  $C^x$ , by or through an endless belt  $c^3$  and sheaves  $c^4$   $c^5$ .

The surface of the roll may be roughened 70  
in any suitable manner or so prepared as to engage the yarn on the bobbin as the latter passes through the throat  $b^x$ .

When the ejected filling-carrier, as  $f$ , enters the hopper, it is directed by the shelf  $b$  75  
and guide  $b^2$  into the throat  $b^x$ , through which it passes to a box or receptacle P, Fig. 1. As it passes the stripper  $c$ , which is rotated in the opposite direction to the movement of the filling-carrier, (see arrow 12,) the loose end 80  
of the yarn remaining on the bobbin will be caught by and wound upon the stripper  $c$ , and consequently unwound from the bobbin. This engagement of the yarn by the stripper refers to such filling-carriers as have been 85  
ejected with loose ends. When a nearly exhausted filling-carrier is ejected, it will be understood that the end of the yarn is usually held by the cloth, so that the bobbin will drop into the hopper and through its throat. 90  
When the yarn is severed by a suitable thread-cutter, the loose end will naturally fall within the hopper, so as to be caught by the stripper and wound upon it. In either case the device is operative, and when the stripper is 95  
full the collected waste yarn can be readily removed, the stripper being preferably made tapering in order to facilitate such removal of yarn therefrom.

The plate  $b^2$  coöperates with the shelf  $b$  in 100



guiding the filling-carriers into the throat of the hopper, and it also serves as a guard to prevent passage of a filling-carrier behind the stripper.

5 My invention is not restricted to the precise construction and arrangement herein shown and described, for, so far as I am aware, it is broadly new to remove or strip waste yarn from filling-carriers or bobbins by mechanical means.

10 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the class described, a hopper having a delivery-throat, a rotatable yarn-stripper forming a portion of one wall of the throat, means to direct a filling-carrier into engagement with the stripper, and a substantially inflexible fixed guide to support the filling-carrier while subjected to the action of the stripper, whereby the waste yarn on the filling-carrier will be caught by and wound upon the stripper.

2. In a device of the class described, a hopper having a contracted delivery-throat, a rotatable stripper forming a portion of one wall of the throat, and means to guide filling-carriers in the hopper to said throat, whereby the stripper may engage and wind upon itself waste yarn from the filling-carriers.

3. In a device of the class described, a receiving-hopper for the filling-carriers, having

a contracted delivery-throat, and yarn-stripping means located adjacent the throat, to engage the loose ends of waste yarn on filling-carriers passed through the throat and clear them of the waste yarn. 35

4. In a device of the class described, a hopper having a contracted throat through which the filling-carriers pass, a rotatable, tapering stripping-roll at one side of the throat, means for rotating it oppositely to the direction of movement of the filling-carriers, a combined guide and guard above the roll at one side of the throat-entrance, and an inclined guide at the other side, the waste yarn on the filling-carriers being caught by and wound upon the stripper. 40 45

5. In a device of the class described, a tapering stripping-roll having a roughened surface, means to rotate it, a concave plate adjacent said roll and forming therewith a passage for the filling-carriers to pass through, and guides to direct filling-carriers between said plate and roll. 50 55

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

WILLIE G. EATON.

Witnesses:

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