

(No Model.)

A. E. CLIBBORN.
TWINE CLEANER AND OILER.

No. 516,964.

Patented Mar. 20, 1894.

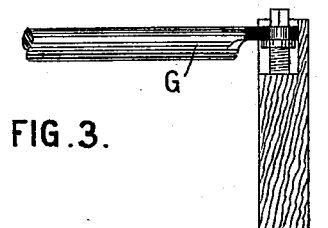


FIG. 3.

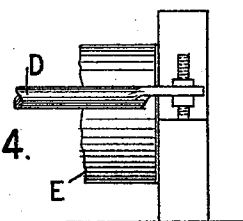
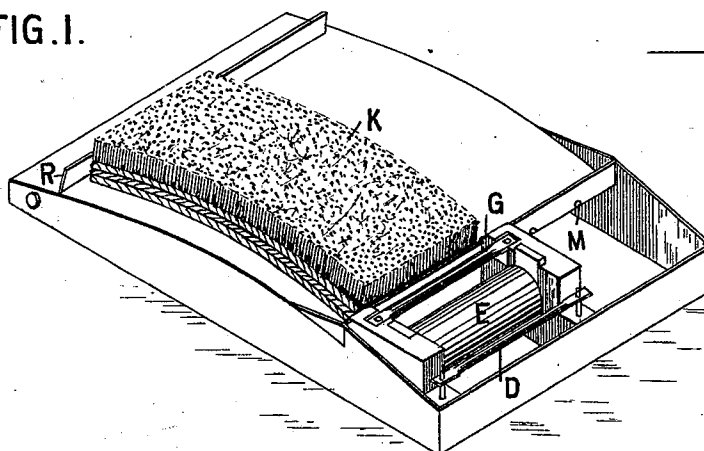


FIG. 4.

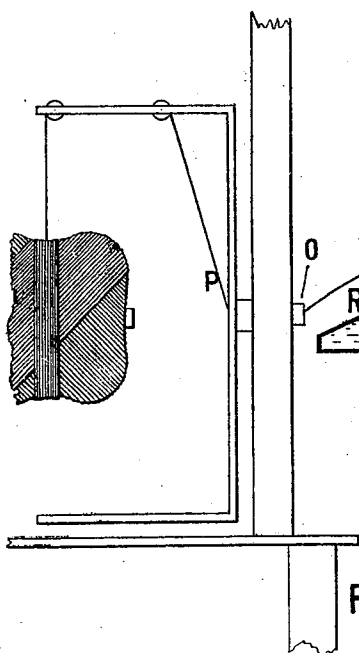


FIG. 2.

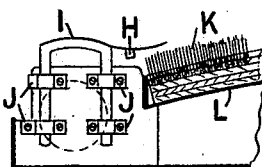
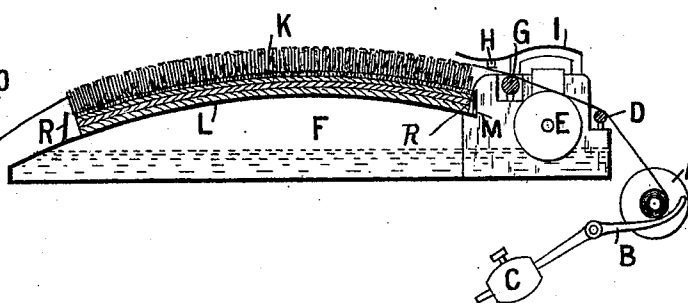


FIG. 5.

Witnesses

James F. Duhamel.
Horace A. Dodge.

Alfred C. Clibborn
Investor
by Dodge & Sons
Attest.

UNITED STATES PATENT OFFICE.

ALFRED E. CLIBBORN, OF BENTHAM, ENGLAND.

TWINE CLEANER AND OILER.

SPECIFICATION forming part of Letters Patent No. 516,964, dated March 20, 1894.

Application filed April 12, 1893. Serial No. 470,079. (No model.) Patented in England December 1, 1892, No. 22,011.

To all whom it may concern:

Be it known that I, ALFRED ERNEST CLIBBORN, a subject of the Queen of Great Britain, residing at Bentham, in the county of Lancaster, in the Kingdom of England, have invented certain new and useful Improvements in Twine Cleaners and Oilers, (for which I have received British Patent No. 22,011, dated December 1, 1892,) of which the following is a specification.

This invention has for its object a method of oiling binding and other twine as it enters the balling machines, and is especially adapted for twine used with self-binding reaping machines.

The invention is best described by aid of the accompanying drawings, in which—

Figure 1 is an isometrical view of the machine with the cover of the roller withdrawn; Fig. 2, a longitudinal section of the machine shown as it is connected with the balling machine; Figs. 3 and 4, details of mechanism for supporting the bars; Fig. 5, a detailed view showing the inner end of the shield with its support.

A is the bobbin which is placed upon a spindle and is regulated by a brake B. The weight C of this brake is preferably adjustable in position as shown. The twine from this bobbin passes over an adjustable bar D, then over a roller E running in a bath of oil F. G is a second bar, also adjustable as regards height. By the adjustment of these bars, the contact of the twine with the roller E is regulated. These bars D and G can be rounded or angular. For very strong twine having a considerable amount of chips, the bars are better more or less angular as more readily knocking off the chips, but for general purposes the round bar is best as it does not make twine hairy.

H is another bar almost always made angular and fixed to the shield I. This shield can be regulated in height, its supports being supported with a tight fit in brackets J J.

K is a stout cocoanut mat placed on the roof L of the oil reservoir F. Perforations M can be made at each end or in the bottom so that oil can drop back again into the oil reservoir F; O is a thimble through which the yarn enters the balling machine; P is the balling machine flier.

The mode of action is as follows:—The bobbin of rough twine is placed on the spindle at A and the twine led through to the balling machine. As it passes over the roller E, it causes the latter to revolve and receives a modicum of oil, the bars G and D regulating this amount. Passing under the bar H, what sticks are not already knocked off by the bars G and D, are largely knocked off by this bar. It then passes over the mat K, which can be of any suitable tough yielding material, not necessarily cocoanut fiber; I have found, however, cocoanut fiber acts best as it materially cleans, rounds and stretches the twine. This mat equalizes the amount of oil in the twine, scraping off the surplus quantity and adding oil to any portion which may have escaped being coated to the required extent; oil scraped off by this mat runs back again into the reservoir F. The twine then passes on to the balling machine and is balled in due course. In some of my later machines I have made the cross bars somewhat in the shape of a fire bar, namely, with a projecting flange below. By turning the bar round and bringing the projecting flange uppermost, the bar is raised half an inch or more without otherwise altering the adjustment; if there be two, three or four flanges of different radii, a large amount of adjustment can be made in this manner. To clean the trough, I take out the roller and the back bar, when the chips which fall into the oil can be cleaned out with a wire brush or a piece of wire netting attached to a handle forming a scoop of wire netting of about one eighth of an inch mesh.

By shifting the brush K sideways or laterally with reference to the line of travel of the twine, a new and fresh brushing surface may be presented.

I declare that what I claim is—

1. A twine oiling and cleaning device consisting of a support carrying a supply bobbin; an oil supplying device E; adjustable cleaning and oiling regulating devices D G and cleaning device H; loose arched matting K capable of lateral adjustment, whereby it can be cleaned, *in situ*, without stopping the machine, or instantly taken off, cleaned, and re-applied; and the delivery O and balling machine P, all substantially as described.

2. In a twine-oiling machine, the combina-

tion with a twine-supply and an oil-reservoir; of an oiling cylinder partially immersed in the oil; a mat or brush; and the adjustable bars D and G the latter being located between the mat and the roller, substantially as shown and described, whereby the surplus oil is removed before the twine reaches the mat.

3. The combination of a twine-supply, and an oiling device; the oil cistern F; the arched roof L for said cistern; the mat K supported on said roof and of less width than said roof and adjustable sidewise thereon; and a twine delivery O so placed as to cause the twine to be pressed against the arched matting.

4. The combination of a holder carrying the braked supply bobbin A; oiling cylinder E; adjustable scraping devices D G regulating the contact of the twine with the oiling cylinder; a second scraping device on the opposite side of the twine; and a mat or brush K, substantially as described.

5. The combination of a twine-supply, and oiling device; the oil cistern F; the curved roof L having drip holes M; and the mat K supported on said roof substantially as and for the purposes described.

6. The combination of a twine-supply, and

oiling device; the cistern F; arched roof L over same having drip holes M; mat K at its lowest points resting on said roof; and abutments R supporting said mat and catching the drip, substantially as and for the purposes described.

7. The combination of a twine-supply and oiling device; the arched support L; the loose mat K supported on the same and having its upper surface higher than the normal line of travel of the twine; and abutments R holding said mat in position longitudinally, whereby the twine is brushed in its travel through a considerable space and the mat can be at any time shifted a trifle to one side and thus a fresh course on the mat obtained for the twine, parallel to the former, and the entire surface of the mat can be uniformly worn by repeated shiftings.

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

A. E. CLIBBORN.

Witnesses:

WM. P. THOMPSON,

H. P. SHOOBRIDGE.