(No Model.)

J. S. GILES.

OILING DEVICE FOR PILE WIRES OF LOOMS.

No. 595,539. Patented Dec. 14, 1897.

Fig. 1.

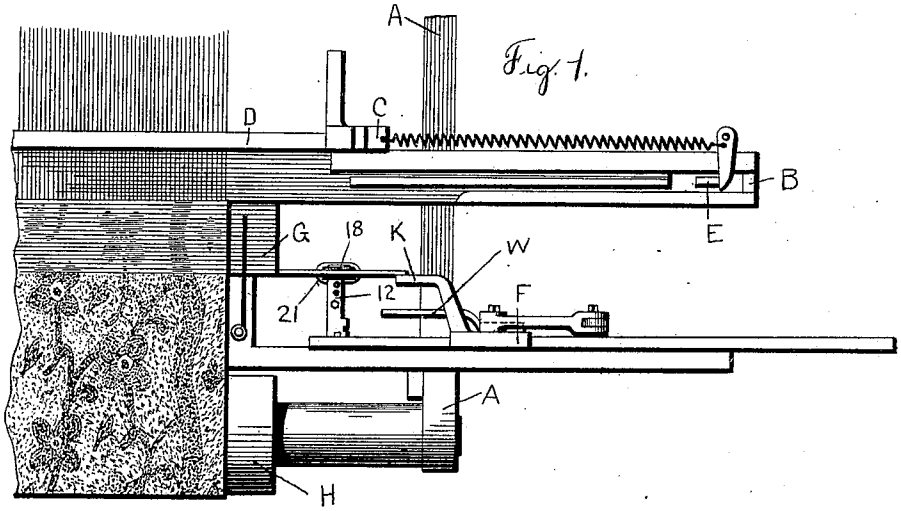


Fig. 2.

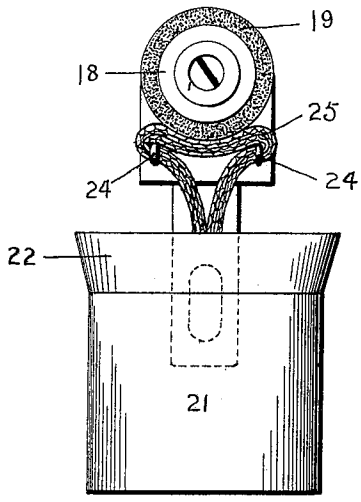


Fig. 3

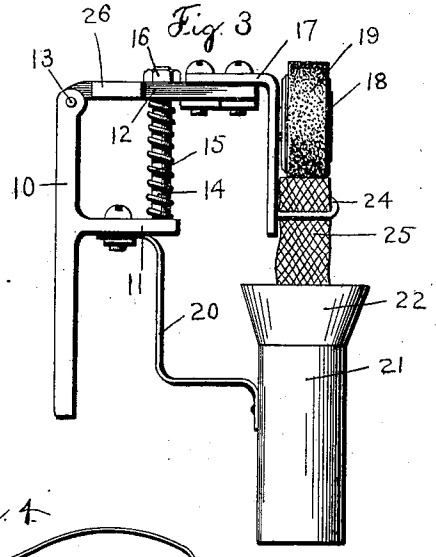
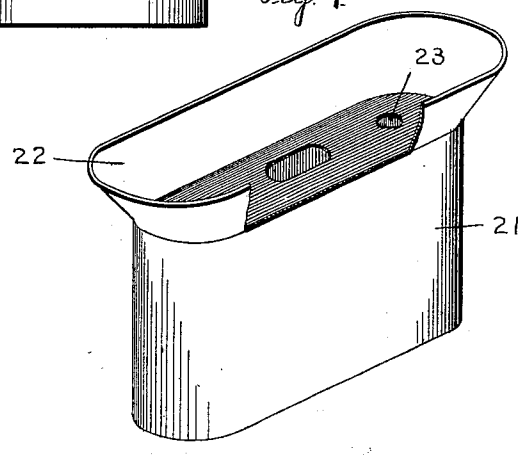


Fig. 4.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH S. GILES, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO MATTHEW J. WHITTALL, OF SAME PLACE.

OILING DEVICE FOR PILE-WIRES OF LOOMS.

SPECIFICATION forming part of Letters Patent No. 595,539, dated December 14, 1897.

Application filed September 26, 1896. Serial No. 607,093. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH S. GILES, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Oiling Devices for Looms, of which the following is a specification.

My invention relates to that class of oiling devices for looms an instance of which is illustrated in my prior United States patent, No. 481,558, granted August 30, 1892.

The objects of my invention are to provide more efficient and reliable means for depositing oil upon the wires of a loom and to arrange said devices so that oil will be deposited on the bottom of the wires only.

To these ends my invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a plan view of enough of a loom to illustrate the application of my invention thereto. Fig. 2 is a front view of an oiling device for looms constructed according to my invention. Fig. 3 is a side view of the same; and Fig. 4 is a perspective view, partially broken away, illustrating the oil fountain or can which I preferably employ.

An oiling device for looms constructed according to my present invention preferably comprises a distributing-wheel for engaging the wires as they are withdrawn from a loom, an oil fountain or can, and wicking arranged to transfer oil from the oil-fountain to the distributing-wheel.

In my prior patented construction the wicking is arranged to engage directly with the wires. Where this construction is employed, the wires as they are withdrawn from the loom will embed themselves for a short distance into the wicking, thus not only oiling the bottoms of the wires, but allowing a small amount of oil to be deposited upon the sides thereof.

In practice I have found that it is not desirable to allow the oil to accumulate on the sides of the wires of a loom, as the same will more readily work out onto the surface of the fabric being woven, so as to stain the same, whereas if oil is deposited on the bottom of the wires only they will be sufficiently lubricated to allow them to be readily manipulated and all possibility of staining or soiling the surface of the fabric will be avoided.

By using an oil-distributing wheel for engaging the wires I have provided a construction which will oil the bottom of the wires only and which will provide a much more efficient and uniform distribution of oil.

Referring to the drawings and in detail, A designates the framing of a loom; B, the vibrating lay; C, the sword; D, the reed, and E the picker-stick. Mounted on the framing of the loom is a carriage F, which is provided with a hook K for engaging with and successively withdrawing the wires G.

H designates a take-up roll.

The parts as thus far referred to may be of any of the ordinary constructions and need not be herein described at length.

A bracket 10, having a projecting arm or shelf 11, may be secured to the framing of the loom in any of the ordinary manners. Pivoted on a pin 13 in the upper end of the bracket 10 is an arm 12. A stud or post 14 is secured in the projection 11 and is provided with a coiled spring 15, which engages the arm 12 and normally tends to hold the same in its highest position, as determined by a nut 16, threaded onto the post 14. Adjustably fastened on the arm 12 is a piece or bracket 17. An oiling or distributing wheel 18 is journaled on a stud in the bracket 17 and is preferably provided with a covering or bushing 19 of felt or other fibrous material for engaging the wires G. An arm or support 20 is fastened to the projection 11 and carries an oil fountain or can 21.

The cover for the oil fountain or can 21 is provided with a flaring drip-flange 22 and is perforated, as at 23, to allow any drip or surplus oil to return thereto.

For transmitting oil from the fountain or can to the distributing-wheel I preferably employ wicking 25, which is carried by suitable staples or wires 24 and is bent or curved under the distributing-wheel 18, so as to have a large surface of contact therewith.

Extending from the carriage F is an operating cam or arm W, which is arranged to en-

gage a lip or projection 26 upon the spring-supported arm 12. When the carriage F is moved in to allow the hook K to engage one of the wires G, the cam W will depress the distributing-wheel, so as to allow the hook K to pass over the same without engagement therewith. When the carriage F moves back, the spring-arm 12 will be released and the distributing-wheel 18 will be brought into engagement with the wire which is being withdrawn and will deposit a uniform film of oil upon the under surface thereof, leaving the sides and top of the wire entirely clean, so as to avoid all danger of soiling or defacing the surface of the fabric being woven.

It is to be understood that by the term "wires" as used in this specification I mean to include not only the smooth wires which are used, for instance, in the manufacture of Brussels carpets, but also that class of wires which are provided with knives for forming cut-pile fabrics—as, for instance, in Wilton carpets.

I am aware that changes may be made in the construction of my oiling device for looms by those who are skilled in the art, and I do not wish, therefore, to be limited to the form which I have shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. The combination in a loom of the wires, the hook for catching and withdrawing the same, a distributing-wheel interposed in the path traveled by said wires, in a position to engage the under sides thereof, an oil fountain or can, wicking for raising the oil from the oil-fountain to said wheel, and means for moving the wheel from its normal position so that the same will clear the hook, substantially as described.

2. In a loom, the combination of the wires, a hook for catching and withdrawing the same, a distributing-wheel having a fibrous covering or bushing, a spring for normally holding said distributing-wheel in position to engage the wires as they are withdrawn, a cam mounted on the carriage of the loom for depressing said distributing-wheel, an oil fountain or can having a drip-flange for catching surplus oil, and a double strand of wicking for transferring oil from the oil-fountain to the distributing-wheel, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH S. GILES.

Witnesses:
LOUIS W. SOUTHGATE,
PHILIP W. SOUTHGATE.