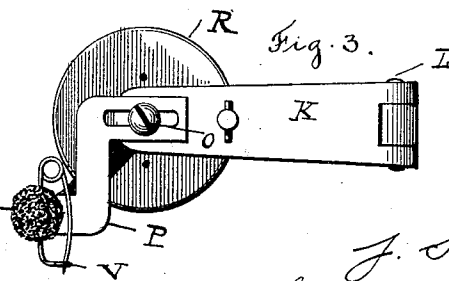
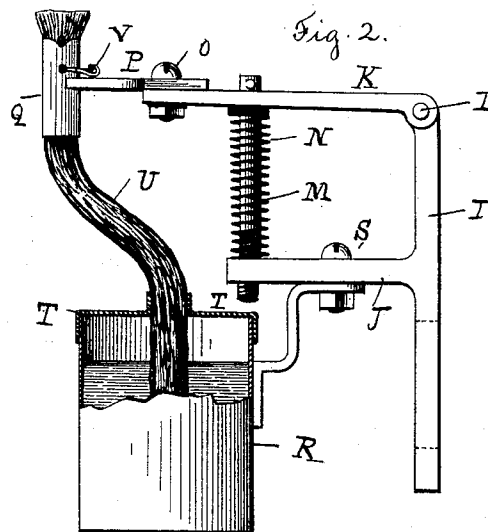
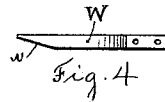


J. S. GILES.
OILING DEVICE FOR LOOMS.

Patented Aug. 30, 1892.



Witnesses
James J. Rafferty
John Woodman

Inventor
J. S. Giles
By his Attorney
Louis W. Southgate

UNITED STATES PATENT OFFICE.

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

OILING DEVICE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 481,558, dated August 30, 1892.

Application filed March 14, 1892. Serial No. 424,754. (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.

The aim of this invention is to improve the construction and operation of looms for weaving tufted pile fabrics; and to this end it consists of the device described and claimed in this specification and illustrated in the accompanying drawings, in which—

Figure 1 is a plan of enough of a loom to illustrate the application of my invention thereto. Fig. 2 is a side elevation, partly in section, on an enlarged scale, of my improved device. Fig. 3 is a plan of the same, and Fig. 4 is a side elevation of the cam mounted on the carriage.

In looms for weaving tufted pile fabrics it is necessary to oil the wires that are inserted in the fabric, so that the same will slip easily in and out of the fabric. The ordinary way of oiling the wires is to draw the same over a circular brush, which is free to revolve, and to keep the surface of the brush supplied with oil by hand from an oil-can. This method, while the one in common use, is objectionable for several reasons, among which may be noted the following: First, the distribution of oil is very imperfect, as enough oil may be put on the brush to injure the fabric or not enough to properly oil the wires and the wires cannot be oiled their entire length; second, the operator must constantly watch and attend to keeping the brush supplied with oil, and, third, the brush will oil the hook which catches and operates the wires, and which is very objectionable. The aim of my invention is therefore to produce an oiling device for this particular purpose which shall be automatic in operation, which will evenly spread any desired quantity of oil on the wires their entire length, and which will not oil the hooks that catch the ends of the wires.

As I use the term "wires" in this specification I mean to include both the smooth wires that are used in the manufacture of Brussels

carpets or the wires that carry knives or cutters for cutting the tufts to form the Wilton form of carpets.

Referring now to the drawings and in detail, A represents the framing of the loom; B, the vibrating lathe; C, the sword; D, the reed, and E the picker-stick. The arrangement and operation of these parts is well understood, and it is not thought necessary to describe the same at length in this specification.

F represents the carriage, which is mounted to slide in the usual manner on the frame, and which may be operated by any of the usual mechanisms. The carriage carries at the end thereof the usual hook 20, which is adapted to catch and withdraw in the usual manner the wires G, and any of the usual means (not shown) may be used to insert the wires again.

H represents the usual take-up roll, around which the finished product is carried.

Fastened on the inside of the front framing or at any suitable point is the frame I, which has the projecting arm J. The top of the frame I is cut away, so as to form a hinge-pivot, and fitting the same is the bifurcated end of the swinging arm K, which is hinged to frame I by pin L.

Fastened or tapped into the extending arm J is the screw M, the head of which rests on the top of the arm K, and surrounding the pin or screw M and bearing on arm J and swinging arm K is the spring N, which thus tends to normally keep arm K raised to its highest position, as determined by the adjustment of the screw M.

Adjustably fastened to arm K by screw O is the piece P, which may be slotted, as shown, so as to be capable of considerable adjustment, and fastened to the end of the piece P is the wick-tube Q.

Adjustably fastened to the projecting arm J, by means of screw S is the oil-cup R, having the removable cover T, passing through which to the wick-tube Q is the wick U. The wick is held in adjustment by means of a pin, as safety-pin V, which is inserted through small holes drilled in the tube, as shown, and

by adjusting the wick up or down more or less oil may be deposited upon the wires, as desired.

Fastened to the carriage and passing under the hook is an arm or cam W, which is adapted to strike on the swinging arm K, and which has the incline *w*, which will act to depress the said arm, so that the wick projecting from the tube Q will clear the hook while the hook is passing over the wick.

The operation is apparent, and is as follows: As the loom is operated in the usual manner, the wires will be caught by the hook and withdrawn from the fabric and then inserted again, as well understood. As the wires are withdrawn the same will be drawn over the projecting end of the wicking, which may be spread out, as shown, so as to oil any desired part of the surface of the wires, and thus the latter will be oiled evenly and for their entire length. The cam W will depress the wick, as before described, so that the same will clear the hook, and thus no oil will be deposited upon the hook.

The use of wicking is very advantageous, as the same acts to practically oil all the wires alike and very evenly and finely for their entire length, and it will be also noted that the operation of the same is entirely automatic, and after being once set does not have to be noticed by the operator.

I wish again to state that the oiling device may be applied to oil the wires used in weaving either Wilton or Brussels carpets or similar or any fabrics where wires are used, whether the same carry knives or not.

The details and arrangements of parts herein shown and described may be greatly varied by a skilled mechanic without departing from the scope of my invention as expressed in the claims.

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

1. The combination, in a loom, of the wires, the hook for catching and withdrawing the

same, a wick interposed in the path traveled by said wires, means for supplying oil to said wicking, and means for moving the wick out of its normal position, so that the same will clear said hooks, substantially as described.

2. The combination, in a loom, of the wires, the hook for catching and withdrawing the same, the arm K, carrying at one end thereof the wicking and normally holding the wicking in the path traveled by the wires, so as to oil the same, and the cam moving with the hook and adapted to strike the arm K and move the wicking, so that the same will clear said hook, substantially as described.

3. The combination, in a loom, of the wires, the hook for catching the same and withdrawing the wires out of the fabric, the pivoted arm K, the screw M, the head of which limits the upward movement of the arm K, the spring N, holding said arm in its raised position, of a wicking carried by the end of said arm and interposed in the path traveled by the wires, and the cam moving with the hook, adapted to strike the arm K and depress the wicking, so that the same will clear the hook, substantially as described.

4. The combination, in a loom, of the wires, the hook for catching and withdrawing the same, the frame I, fastened to the loom-frame and having the extending arm J, the arm K, pivoted to the frame I, the tube Q, carried at the end thereof, means for adjusting the tube relatively to the arm K, the spring for holding the arm K normally elevated, the cam W, carried by the carriage of the loom, adapted to depress the arm K, the oil-cup R, and the wicking extending from the oil-cup to the tube Q, 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,
ALFRED THOMAS.