

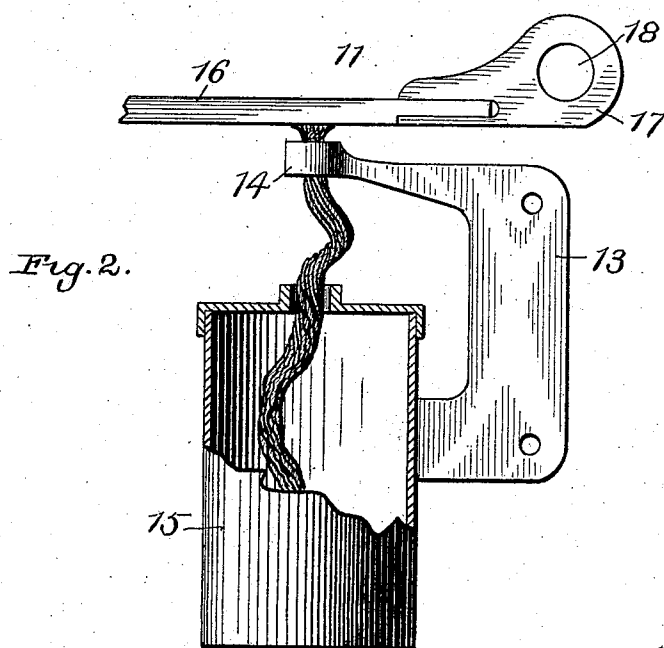
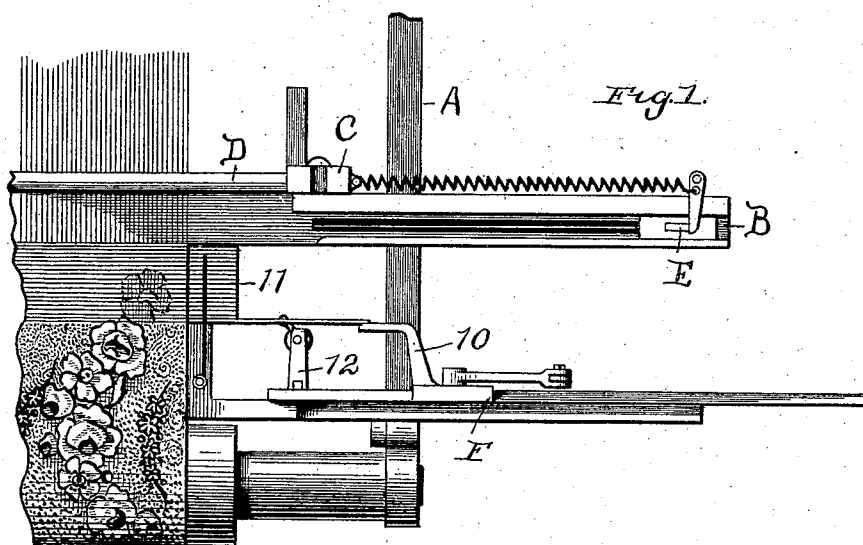
No. 849,783.

PATENTED APR. 9, 1907.

J. S. GILES.

PILE WIRE OILING DEVICE FOR LOOMS.

APPLICATION FILED MAY 13, 1899. RENEWED SEPT. 21, 1906.



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UNITED STATES PATENT OFFICE.

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

PILE-WIRE-OILING DEVICE FOR LOOMS.

No. 849,783.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed May 13, 1899. Renewed September 21, 1906. Serial No. 335,648.

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 Oiling Device for Looms, of which the following is a specification.

The object of my present invention is to improve the construction and operation of looms for weaving piled fabrics; and to this end it consists of the construction and combinations of parts whereby the pile-wires and the hook for withdrawing the same may be combined with a stationary oiler for lubricating the wires.

In the accompanying drawings, Figure 1 is a plan view of sufficient parts of a loom to illustrate the application of my invention thereto, and Fig. 2 is an enlarged detail view of the stationary oiler and a portion of one of the pile-wires.

In weaving pile fabrics the wires by means of which the piles are formed have to be successively withdrawn from the fabric, and when the fabric is of a close texture or is beaten up comparatively hard a heavy pull is required to withdraw each successive wire. To facilitate this operation, it is now customary to provide an oiling device for oiling or lubricating each wire as it is withdrawn, so that when said wire is again automatically woven into the fabric it will have sufficient oil thereon so that it may be readily pulled or drawn out of the fabric.

While an oiling device for the pile-wires is essential in all pile-fabric weaving, great care has to be exercised in using the same. This is especially the case in weaving light and delicately colored carpets. If the oiler should by any possibility deliver oil to the wires too freely, the surface of the carpet being woven is liable to show grease spots or stains, and, on the other hand, if the wires are not sufficiently lubricated they become heated or stuck in the fabric, so that the wires will be broken when it is attempted to withdraw the same or other parts of the loom will be deranged.

In my prior patent, No. 481,558, granted August 30, 1892, I have shown and claimed an oiling device for pile-wires having a wick which is normally located in the path of the wires and which is connected so as to be automatically moved out of the way of the

hook which is employed for catching and withdrawing the wires.

The especial object of my present invention is to construct the pile-wires and the hook for catching and withdrawing the same so that these parts may be combined with a stationary oiler, so that when the oiler has been once set or adjusted to proper position it will not have thereafter to be moved or adjusted and a more uniform lubrication of the wires secured than is possible with an oiler which has to be moved out of the way.

Referring to the accompanying drawings and in detail, A designates the loom-frame; 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 designates the carriage, which is reciprocated by any of the usual mechanisms. The carriage F is provided with a hook 10, which catches and withdraws the wires 11 from the fabric, the wires after being withdrawn being again inserted automatically in position to have a fresh portion of the fabric woven thereon by means of any of the ordinary mechanisms, which it is not thought necessary to herein show or describe. The hook 10 is preferably arranged a trifle higher than in a loom of ordinary construction—that is to say, the path of the hook is preferably raised a slight distance above the plane of the wires. Each of the wires G comprises a shank or body 16 and an end piece 17, having an eye 18. The end piece 17 has its lower edge flushed with the bottom of the body portion 16, and the eye 18 instead of being arranged in line with the shank or body portion 16 of the wire is slightly elevated or raised. The oiling device which I combine with the pile-wires and the withdrawing-hook as thus constructed may be varied in construction.

As herein illustrated, a bracket 12 extends in from the framework of the loom to carry the oiling device, and the oiling device comprises an arm or bracket 13, having a wick-holder 14 and can 15. A wick extends up from the can 15 through the wick-holder in position to engage and lubricate the wires as they are successively withdrawn, and as the end piece of each wire is flushed with the body-portion of the wire and, as the with-

drawing-hook is raised sufficiently to clear the wick-holder these parts will clear the oiling device and will not require the same to be moved out of the way. On this account when the oiling device has been once set to proper position it will not thereafter require adjustment or movement and will secure a more uniform lubrication of the pile-wires than has heretofore been possible.

I am aware that changes may be made in the construction of my oiling device by those skilled in the art without departing from the scope of my invention as expressed in the claim. I do not wish, therefore, to be limited to the form of construction which I have herein shown and described; but

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

In a loom, the combination of wires, each

comprising a shank or body portion 16, an end piece 17 having its lower side flush with the bottom of the body portion, and its eye 18 above the same, a hook 10 for catching and withdrawing the wires, said hook being arranged to reciprocate above the plane of the wires, and a stationary oiling device comprising a wick-holder, a can, and a wick extending from the can up through the wick-holder in position to be engaged by the bottoms of the wires, substantially as described.

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

JOSEPH S. GILES.

Witnesses:

JOHN F. CROWELL,
PHILIP W. SOUTHGATE.