

J. MARTIN.
PICKER SPINDLE FOR LOOMS.
APPLICATION FILED MAR. 2, 1910.

1,017,225.

Patented Feb. 13, 1912.

FIG. 1.

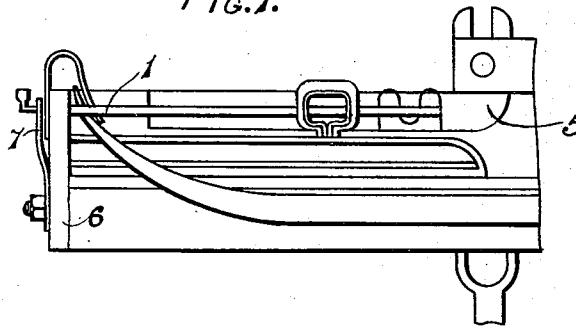


FIG. 2.

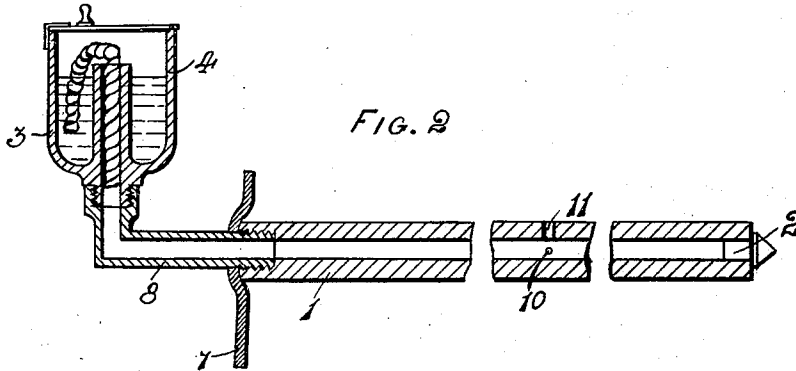


FIG. 3.

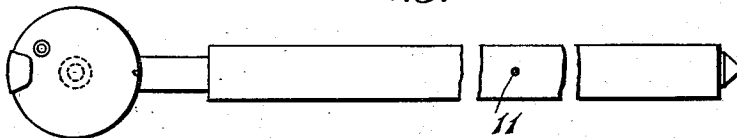
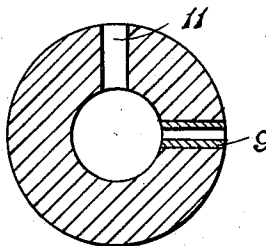


FIG. 4.



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JAMES MARTIN, OF MANCHESTER, ENGLAND.

PICKER-SPINDLE FOR LOOMS.

1,017,225.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed March 2, 1910. Serial No. 546,950.

To all whom it may concern:

Be it known that I, JAMES MARTIN, a subject of the King of Great Britain and Ireland, and resident of Manchester, in the county of Lancaster, England, have invented certain new and useful Improvements in Picker-Spindles for Looms, of which the following is a specification.

This invention relates to the lubrication of picker spindles of looms for weaving and consists in an improved arrangement or construction of said spindles by means of which the lubrication is effected through the spindle itself.

On the drawing the improved spindle is represented, Figure 1, showing one end of the loom slay with the spindle in position; Fig. 2, a longitudinal section and Fig. 3 a top view of the spindle; Fig. 4, a cross section on a greatly enlarged scale.

According to this invention the picker spindle 1, is formed of a steel tube, which is closed at one end by a preferably coned plug 2 and at the other end by an oilcup 3 screwed into it. The oil cup has a central tube 4 communicating with a suitable connection, as the elbow 8, through which oil can be supplied continuously to the spindle by means of a wire lapped with flannel or equivalent wick in the known manner. The spindle is fixed in the loom slay in the usual manner with one end entering a recess in the block 5 and the other end passing through the end bracket 6 and held in position by the spring blade 7, which in this case is drilled through for the elbow 8, of the oilcup to pass through the hole as shown on Figs. 2 and 3. The wall of the tubular spindle is preferably about $\frac{1}{8}$ inch in thickness, and through it oil and air holes 10 and 11 respectively are drilled, the latter at or near the top and the former at the back of the spindle. The oil holes are made very small, about one sixty-fourth of an inch in diameter, and as such small holes are difficult to drill through steel, a larger hole is preferably drilled through the wall of the spindle and a plug 9 of copper or other soft metal driven into it, through which the hole

is drilled. The air holes may be somewhat larger, and holes of the desired size preferably obtained in the same way as the oilholes. There may be only one oil-hole and airhole or two oilholes with one or two airholes, in the same sectional plane. With this very small size of oilholes and the very small height of pressure, the oil cannot run out by gravity but is held in the hole by capillary action. The oil is fed to the contacting surfaces of the picker and spindle by the slight compression of air which occurs in the air hole as the picker passes thereover. This slight compression of air forces a minute quantity of oil from the oil outlet at substantially the period that the picker is passing thereover, the air hole and oil outlet being in substantially the same cross sectional plane. In this way, not only is the oil fed so that it may be quickly spread over the contacting surfaces, but is also prevented from being flung into the cloth. By using one or two oilholes, making them a little smaller or larger, turning the spindle so that the oilhole is inclined upward or downward, and compressing the wick in the tube of the oilcup more or less, the lubrication can be regulated to suit any size of spindle, speed of loom and quality of oil. The oil taken out of the spindle, will be replaced by suction from the oilcup.

I claim as my invention:—

1. In a loom, the combination with a picker, of a spindle therefor, provided with an oilway extending longitudinally thereof, an air hole open to the upper surface of said spindle and an oil outlet in communication with said oilway, and oil supply means in connection with the said oilway, said air hole and oil outlet being in relative proximity to each other whereby the oil is fed from the latter upon movement of the picker over the former, substantially as and for the purpose set forth.

2. In a loom, the combination with a picker, of a spindle therefor, provided with an oilway extending longitudinally thereof, oil outlets extending laterally of said oilway and airholes open to the upper surface

of said spindle, and oil supply means in
connection with said oilway, said oil outlets
and air holes being in relative proximity to
each other whereby the oil is fed from the
5 former by compressed air resulting from
the passage of the picker over the latter.

In testimony whereof I have hereunto set

my signature in the presence of two wit-
nesses.

JAMES MARTIN.

Witnesses:

CARL BOLLÉ,

WILLIAM JONES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."