(12) **United States Patent**
Smith

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(54) **LOOM, WEAVING, FIGURED GOODS**

(76) Inventor: **John Smith**

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Letters Patent.

The schedule referred to in these Letters Patent and making part of the same, containing a description in his own words of the said John Smith himself of his improvement in the Loom for weaving Figured work.

To all whom it may concern.

Be it known that I John Smith of of Shaffertown in the County of Lebanon & State of Pennsylvania, have invented certain improvements in the Loom for weaving figured work. which improvement appertain principally to that part of the Loom which operate upon the Drawboys and their appendages which are concerned in forming the shedding to be weaved, In the figure Loom commonly employed, there are pins in a cylinder, which as the cylinder is turned, operate upon the shifters, and force them back, a mode of procedure which produces considerable resistance, in the working of the Loom. and in damp weather not infrequently causes the pins to break or produces other inconvenience

By my improvement the shifters are drawn back by means of a treadle connected with an upper treadle or lever acting like them which lift the draw boys. This lever stands in a line with the draw boy levers, and when it is drawn down by a treadle a friction roller attached to it is brought into contact with a latch on the upper end of a vertical lever, the lower end of which is fixed in a roller or shaft which carries the frame work, and turns upon gudgeons, This vertical lever is forced back by the friction roller, and is so connected with the shifters as to draw them back, with it, and whilst at the same time the cylinder is turned to the proper distance in a way to be presently described, When this is effected the latch ~~the latch~~ from its con

construction disengages itself from the friction roller and the vertical lever is forced forward into its place by a spring — thus causing the shifters to return to their places and stand between the pins on the cylinder.

The Drawing represents in the Patent office, will more distinctly show the arrangement of this and other parts of the apparatus than they can be made known in words only. The same lever which carries the friction roller is made to turn the cylinder. It has for this purpose a chain or band fastened to its inner end, which passes round a pulley by the action of which a lever is raised, which is so connected as to push the pins down or pull them operates on ratchet teeth on the end of the cylinder in the usual way. I adapt the same loom to the weaving of fine work, such as cotton lace, or of coarse work such as carpets, by shifting the gears which operate upon the draw boys, for this purpose I employ the double draw boy somewhat similar to that used in the double carpet loom but different from it in causing it to work either of two sets of gears, but only one at the same time, whilst in that calculated for double work both sets of draw boys are worked together whilst I use only one set upon the same work, shifting them as may be necessary, my loom not being calculated for double work.

What I claim as my invention is the arrangement of that part of the loom just described by which the shifters are drawn instead of being forced back by the action of the pins upon the cylinder, and this I claim whether the effect be produced precisely in the manner represented or in any other which is substantially the same. I also claim the mode of connecting the lever which draws the shifters back by which the cylinder is turned at the proper time & to the proper distance.

I claim likewise the shifting gear of the two sets of gears in the same loom, in the manner described by which it is adapted either to coarse or fine work. It is to be understood that I do not intend to claim the individual parts connected in

or either of those operations, but only that general arrangement and connection of those parts by which new and useful effects are produced.

Witnesses

George Thalke

Saml. Stettinius

Wm. Smith

Ex.

Cl. fil.

780 wds