(12) **United States Patent**
Meily et al.

(10) **Patent No.: X8037**
(45) **Date of Patent: Mar. 1, 1834**

(54) **LOOM,WEAVING, COVERLETS, &C.**

(76) Inventors: **Emanuel Meily Jr.; John Mellinger; Samuel Mellinger**

Emanuel Meily jr. John Mellinger and Samuel Mellinger

The Schedule referred to in these Letters Patent and making part of the same, containing a description in the words of the said Emanuel Meily jr. John Mellinger and Samuel Mellinger themselves of their Improvements in the Loom or Machine for Weaving Coverlids, carpets, Diapers, and other kinds of fancy work.

To all whom it may concern, Be it known that we Emanuel Meily jr. John Mellinger and Samuel Mellinger of the Borough of Lebanon in the County of Lebanon, and the State of Pennsylvania, have invented certain improvements in the Loom or machine for weaving coverlids, carpets, Diapers and other kinds of fancy work and we do hereby declare that the following is a full and exact description thereof, reference being had to the drawings which accompany, and make part of this specification. The many respects this Machine resembles that in common use, but by means of the improvements which we have made we feather and weave the same fancy with two or the old plans, in consequence of which but one half of the treadles formerly used are required by us. A. A. Fig. 1. is the ordinary frame of the loom. B. C. D. E. are treadles, when the foot is placed upon the treadle B. and it is forced down, a line or cord leading from it and connected with the lever F. draws one end of it down, and raises the other, which is attached to the figure heddles and of course raises them, at the same time that these are raised, one half of the hindoes are raised also, the cord being attached to the lever, which works the hindoes as shown in the drawing. The next treadle operates in a similar manner upon the other half of the hindoes. The dotted lines at G represent the cords by which the attachment to the figure heddles is formed, and also the ends of the sliding piece which catches the hook in raising the figure heddles. The projecting iron rod H. having a friction wheel at its end, is attached to the sliding piece, and

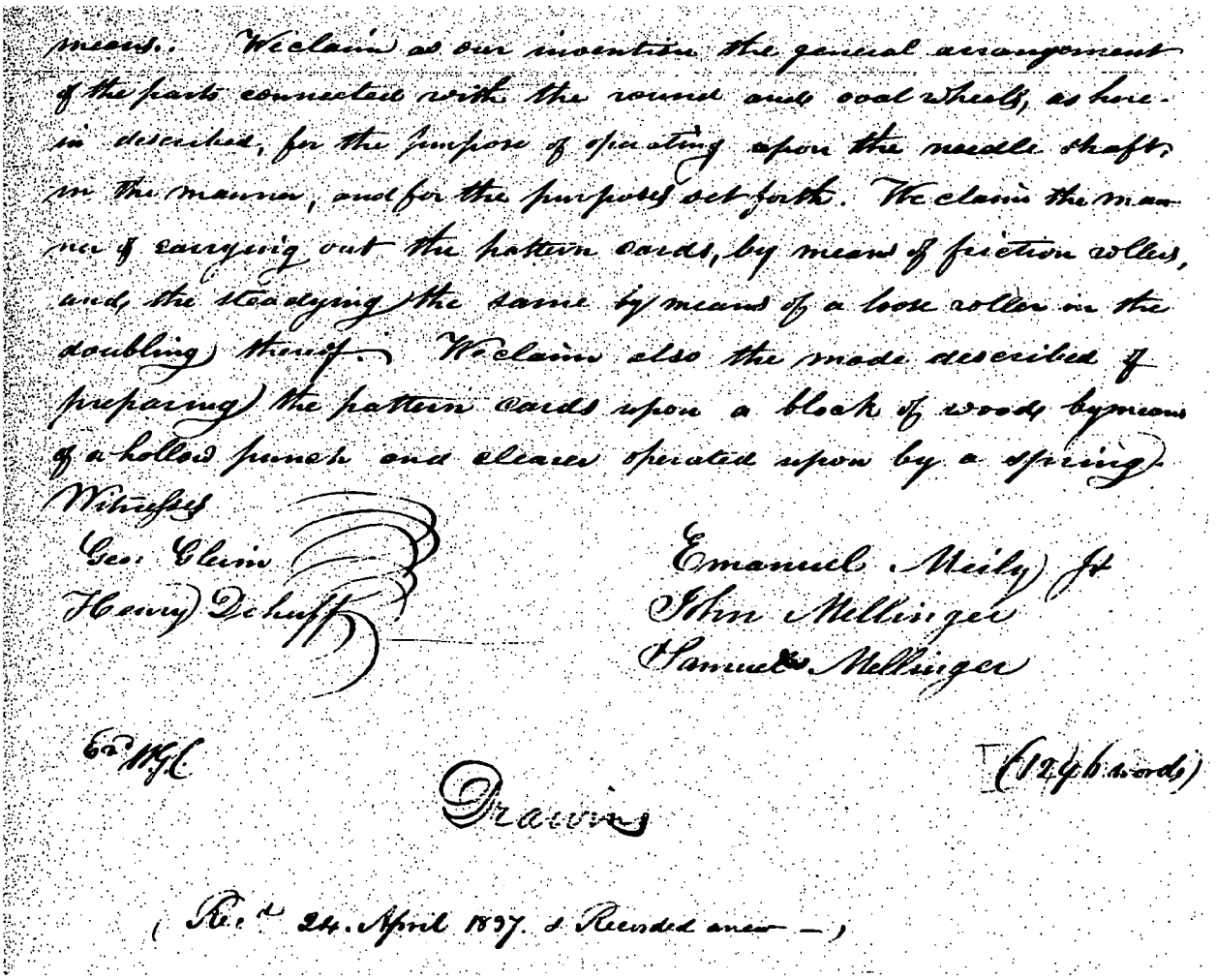
of course rises with it. In so doing the friction roller is brought into contact with the curved spring piece I. The lower end of this is attached to what we call the swinging frame J. These parts are all double, that is they are repeated at the opposite end, and of course are not seen in the drawing. The needle beam K. turns in the swinging frame. Upon the swinging frame there is a cam L. which catches upon pins, upon the wheel M. there being four such pins, at equal distances apart. the cam is shown in the drawing about resting upon one of them, and the needle beam is in operation with the pattern cards. When the swinging frame is thrown forward the cam L. catches upon the next pin not seen in the drawing, being thrown backward by the swinging frame, the needle beam is of course one fourth of the way round at every other forward swing of the swinging frame.

Behind the wheel M. and on the same shaft with it there is another wheel N. being the round and M. the oval wheel. These two wheels are shown in fig 2 what we denominate the oval wheel. These two wheels are shown. The hooks O & P. the round and oval wheels are solely intended to operate upon the needle beam. The situation in which the hooks O & P. stand in the drawing results from their being operated by the contact of the longest diameter of the oval wheel. When the swinging frame moves forward being set into operation by one of the figure treadles, the needle beam and pattern cards on it, remain in the same situation in the return of the swinging frame, the cam L. catches one of the pins on the round wheel M. before mentioned, and turns both wheels one tooth. round and consequently the ratchet wheel C, fastened upon the shortest diameter of the oval wheel, and at E & F extremity, to the back of the needle beam, at the second swinging forward of the swinging frame being set into operation by the other figure treadle, the needle beam being held by the hook O. of course turns round one tooth and presents a new pattern card towards the needles. A and Q connects the outer ends of the two hooks O & P. The weight R. has wood attached to it which rides over a pulley on the upper part of the machine and is connected with the hooks O & P as seen in the drawing.

When

When the workman has proceeded with the work to the centre of the pattern, whilst the weight R was bringing upon a fine, heavy indentation, and wishes to weave the rest of his pattern in the reverse order, all he has to do is to take the weights R off of the frame, let R gradually take hold of the cord which will then raise the two hooks C C upwards and unbend the upper hook C and below spreader upon the needle beam, and the lower hook takes hold of the needle beam and draws it one fourth round in the reversed order and also presents the pattern cards towards the needles in the reversed order.

We carry the pattern cards out by spanning them over friction rollers as shown at V V. we also place a board W between the doubling of the pattern cards which keeps them in a proper state of tension, and causes to work with regularity. In our first specification we omitted to describe an improved mode adopted, and then used by us of preparing the pattern cards. The usual method of doing this is to place the prick board of which the cards are made, between two pieces of metal similarly perforated, and to punch them with solid round punches. Instead of this we take a single plate usually of metal, and confine it upon a block of wood, resting upon the end grain thereof, we then cut the prick board, placed between the plate and the wood, by means of a hollow punch. This punch had a wire passing through its hollow, or barrel coiled into a spiral spring so as to push out the pieces as they are cut. This arrangement is shown at Fig 3. and needs no further description. The machinery may be variously modified and arranged, whilst the same general principles, or modes of action as those upon which our improvements are dependant, may be substantially retained, in framing certain things as we mention. Further it is to be understood that we do not confine ourselves to the precise modes and forms by us set forth, but to vary the same, in any way we may deem proper, whilst the same results are attained by analogous means.



means. We claim as our invention the general arrangement of the parts connected with the round and oval wheels, as herein described, for the purpose of operating upon the needle shafts in the manner, and for the purpose set forth. We claim the manner of carrying out the pattern cards, by means of friction rollers, and the steadying the same by means of a loose roller on the doubling thereof. We claim also the mode described of preparing the pattern cards upon a block of wood by means of a holled punch and cleaner operated upon by a spring.

Witnesses

Geo. Clein

Henry Dehuff

Emanuel Meily Jr

John Mellinger

Samuel Mellinger

Ex'd 1847

(124 words)

Drawing

(Rec'd 24. April 1837. & Recorded ane —)