(12) **United States Patent**
Wilkinson

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(54) **LOOM, REEDS, MACHINE FOR MAKING**

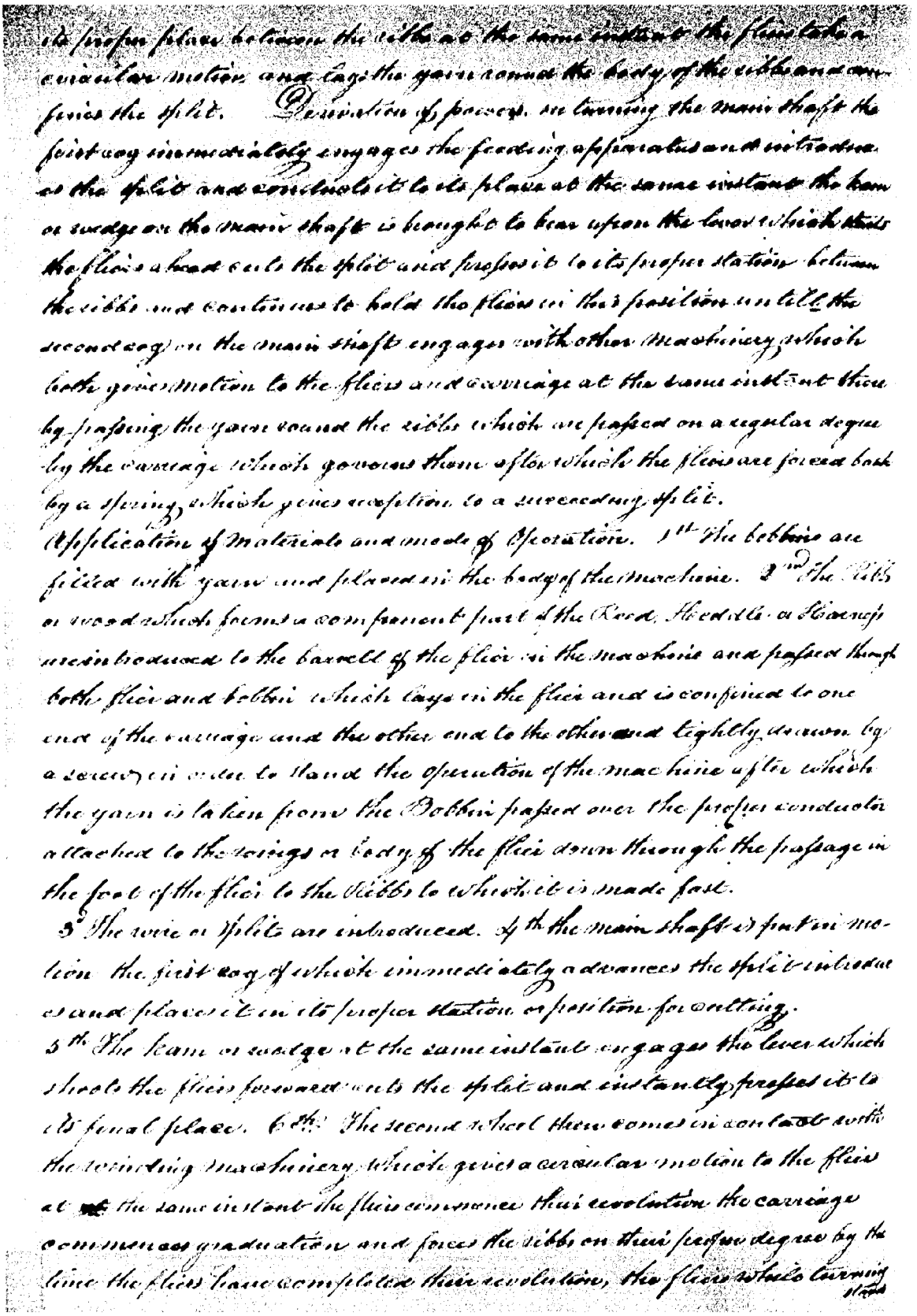
(76) Inventor: **Jeptha A. Wilkinson**

Sefetha A. Wilkinson

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Sefetha A. Wilkinson himself of his machine for Manufacturing Weavers Reeds Heddles or Harness.

This machine has three principle powers or motions derived from one main shaft two of which, two other additional powers or motions all of which operate the following parts in regular succession viz. forming, striking, cutting, gauging and winding the Reed Heddle, or Harness. which is done by one revolution of the main shaft. The main shaft has three agents placed upon it two of which are wheels one third of the circumference are set with cogs. the other is a cam or knee or wedge which operates upon a lever that throws the flies forward which cuts the splits and keeps and suspends it in that position until crossed by the flies receiving a circular motion from one of the wheels on the main shaft. The flies is an instrument the Bowles or strings of which are extended sufficiently to admit of a bobin to pass with yarn. within it circumference it has a shaft extending from each end on a line with the centre of sufficient magnitude to admit of a hole through the centre on a line from end to end of sufficient size to give passage to the Gibbs which it winds and to admit of wheels on the body by which it is governed and bearings by which it is held to its proper place in the machine. the foot of the flies is the end and part which entirely winds and passes the split and winds it firmly to its station, the foot of the flies has a passage nearly the length of its body entering on the outside and running parallel with the main passage of the Gibbs and running out at the point through which the yarn is discharged when upon the Gibbs, the point of the flies cuts the split by being passed forward on the Gibbs past the throat or passage of the split to the Gibbs in a piece of metal made to fit the circumference of the flies. the same motion passes the split to

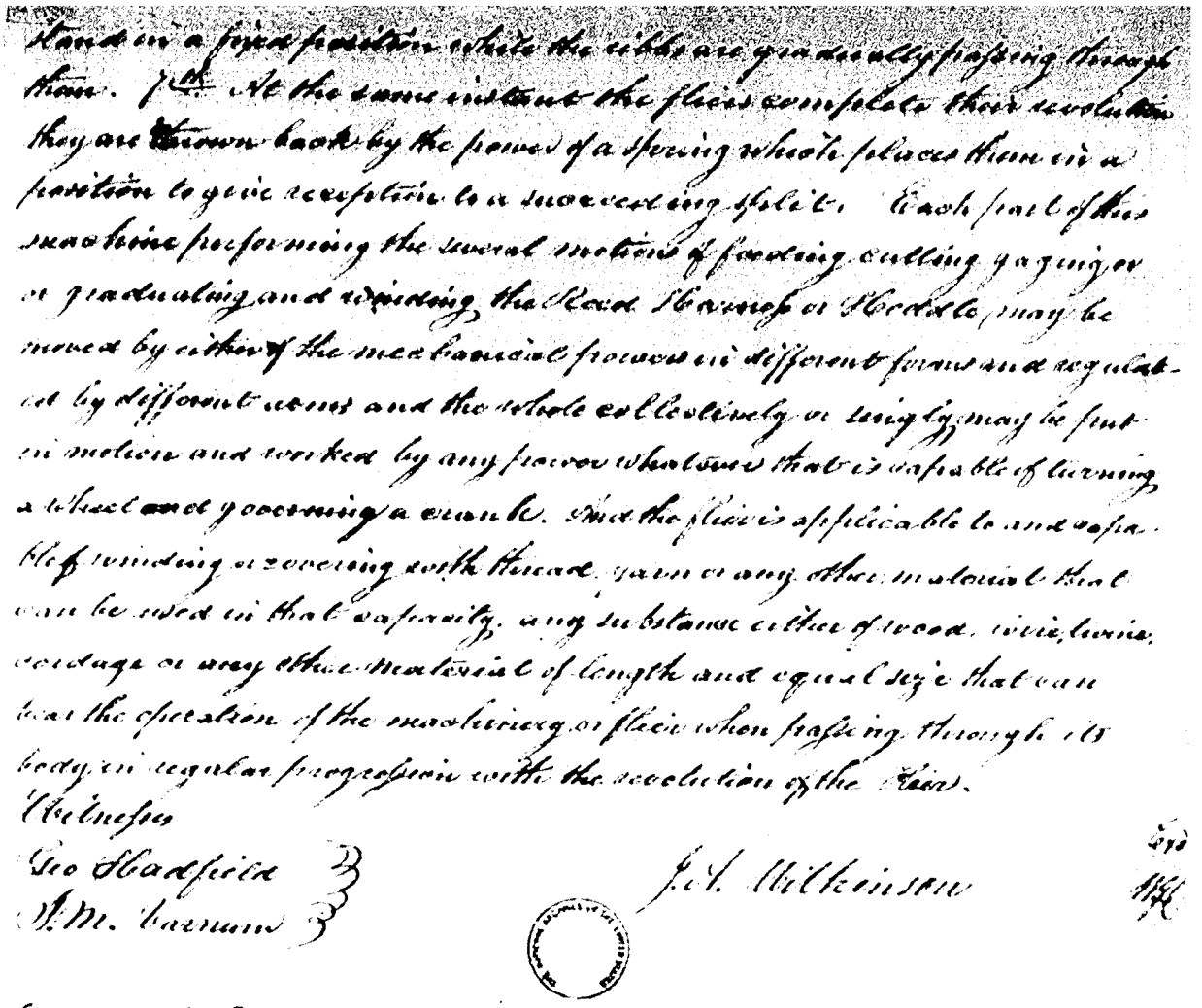


its proper place between the ribs at the same instant the flies take a circular motion and lay the yarn round the body of the ribbon and confines the slide. Revolution of pinion. on turning the main shaft the first cog immediately engages the feeding apparatus and introduces the slide and conducts it to its place at the same instant the ham or wedge on the main shaft is brought to bear upon the lever which thrusts the flies a head and to the slide and presses it to its proper station between the ribbs and continues to hold the flies in that position until the second cog on the main shaft engages with other machinery which both gives motion to the flies and carriage at the same instant thus by passing the yarn round the ribbs which are placed on a regular degree by the carriage which governs them after which the flies are forced back by a spring which gives motion to a succeeding slide.

Application of Materials and mode of Operation. 1st The bobbins are filled with yarn and placed in the body of the machine. 2nd The ribs or wood which forms a component part of the Reed. Heddle or Harness mein produced to the barrell of the flies in the machine and passed through both flies and bobbin which lays in the flies and is confined to one end of the carriage and the other end to the other and tightly drawn by a screw in order to hand the operation of the machine after which the yarn is taken from the Bobbin passed over the proper conductor attached to the strings or body of the flies down through the passage in the foot of the flies to the ribbs to which it is made fast.

3rd The wire or slide are introduced. by the main shaft receives motion the first cog of which immediately advances the slide introduces and places it in its proper station or position for casting.

5th The ham or wedge at the same instant engages the lever which thrusts the flies forward and to the slide and instantly presses it to its final place. 6th The second wheel then comes in contact with the winding machinery which gives a circular motion to the flies at the same instant the flies commence their revolution the carriage commences graduation and forces the ribbs on their proper degree by the time the flies have completed their revolution, the flies cease turning



Hand in a fresh position while the ribbons are gradually passing through them. 7th At the same instant the flies complete their revolution they are drawn back by the power of a spring which places them in a position to give reception to an succeeding shuttle. Each part of the machine performing the several motions of forcing, pulling, gauging or graduating and uniting, the Head Warp or Border, may be moved by either of the mechanical powers in different forms and regulated by different means and the whole collectively or singly may be put in motion and worked by any power whatever that is capable of turning a wheel and governing a crank. And the flies is applicable to the weaving of Ribbons or covering with Thread, yarn or any other material that can be used in that manner, any substance either of wood, wire, twine, cordage or any other material of length and equal size that can bear the operation of the machinery or flies when passing through its body in regular progression with the revolution of the Flies.

Witnesses
Geo Hadfield
W.M. Barnum

J.L. Wilkinson

(1014 Words)