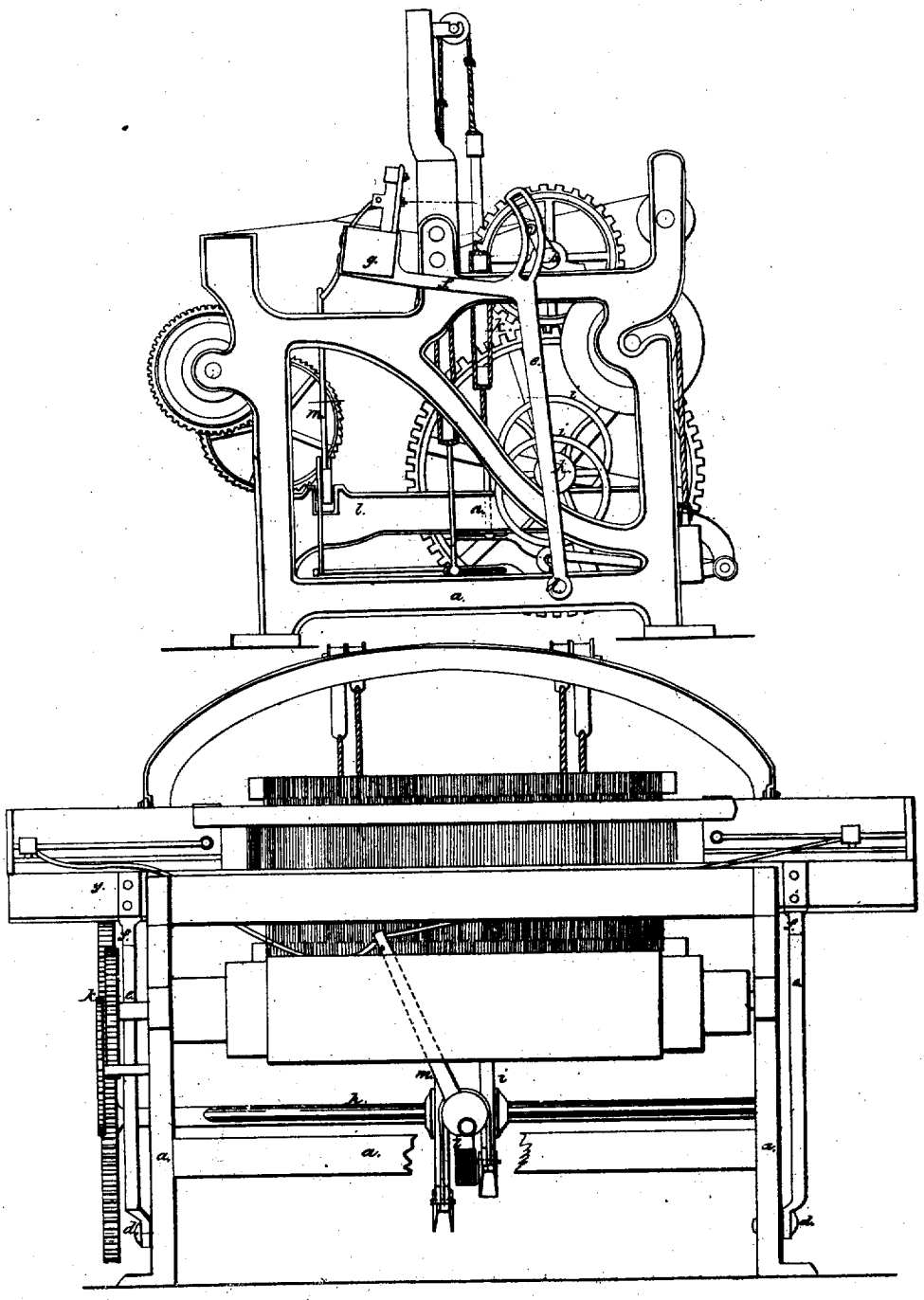
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No Printed Specification Available.

W. H. Howard.

Loom.

Patented Feb. 12, 1830.



X 5826 Oct. 12. 1830 139.

William H. Howard.

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 William H. Howard himself of his improvement in the Power Loom called "Improved rebating cam Loom"

To all persons to whom these presents shall come. William H. Howard of Worcester in the County of Worcester & State of Massachusetts machinist sends greeting. Be it known that I the said Howard have invented made & applied to use a new & useful improvement in the power loom called the "Improved rebating cam Loom" & specified in the words following. Power looms such as have been and are now in general use are constructed with a frame of sufficient length to receive the desired width of cloth & of width enough to admit the lathe to rebate and the harness to open the warp for the passage of the shuttle. It has a shaft called the main shaft extending the length of the loom & placed nearly in the centre of the frame. On each end of said main shaft are cranks & sweeps. The lathe is supported on pivots at the bottom and near one corner of the frame. The perpendicular parts of the lathe at the ends on which it rests & rebates are called "Lathe standards." The lathe is put in motion by means of an arm extending from the crank on the main shaft to the back side of the lathe. The shuttle & harness are put in motion by means of cams on a shaft lying under the main shaft & connected with the said main shaft by bevel gears. The cams are on the centre of the loom & supported by a rigid post. The looms as above described are called "crank looms" & are found to answer a valuable purpose for weaving narrow cloth, but for weaving broad cloth they are not considered suitable on account of the motion of the lathe announced by the crank not giving sufficient time for the shuttle to stop before the lathe arrives to beat in the weft. To obviate this difficulty various methods have been introduced. The most effectual one I will endeavour to describe in the manner following, viz.

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upon about two feet in length is placed perpendicularly at one end of the main shaft the bottom of which is supported on a pivot made fast to the end of the lower frame steadily upon the main shaft. On the top of this pivot is a socket of a circular form & the pin on the crank on the main shaft and at each revolution produces a vibrating motion to the upright pin as above described which is called the "vibrating cam." The motion is given to the lathe by arms extending from the "vibrating cam" to the lathe in the same manner as on the crank lever. The two levers already described resemble each other in every other respect than that of giving a downward motion to the lathe by means of the vibrating cam. I do not however claim any improvement in the levers already specified as my improvement, but I do claim the particular method of applying the vibrating cam immediately simply & effectually than ever before done & also that of the cast gut. In providing and my improvement reference is to be had to the drawings deposited in the Patent Office. My improvement consists in thus making the circular motion called "vibrating cams" as above) on the lathe stand and instead of having a separate piece for that purpose alone 2nd that of applying the cast gut so as to admit of the cam straddling said cast gut & that part called the "swag staff" being hung on a pivot on the cast gut. I believe that the above is a true specification of my improvement as above described. Have hereto set my hand & seal this twenty fifth day of November in the year of our Lord one thousand eight hundred and thirty nine

Witnesses
Joel Downing
Emery Washburn

William H. Howard