

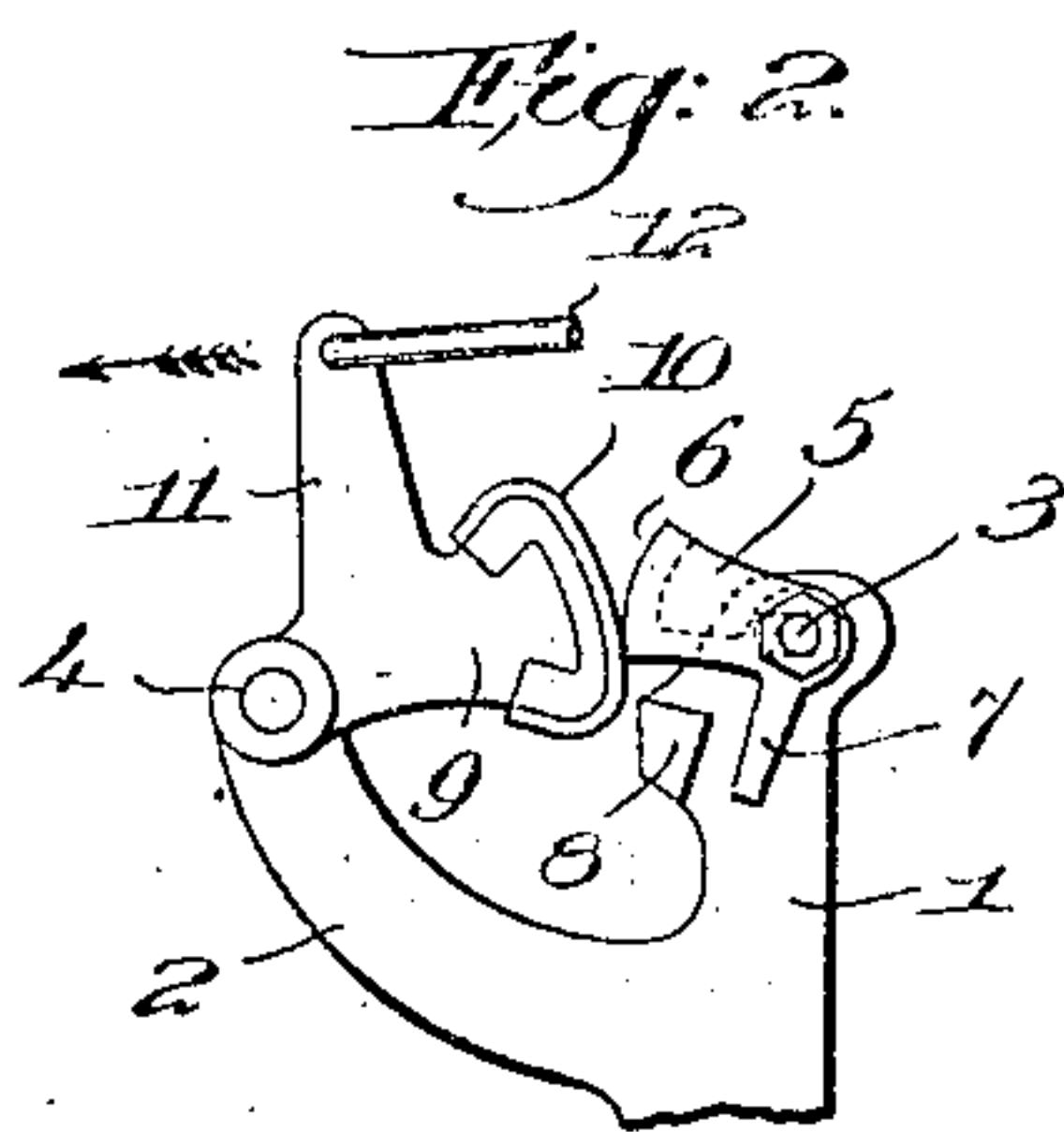
919,464.

Fig. 1.

The diagram illustrates a mechanical assembly, possibly a pump or engine component, mounted on a vertical frame. The main components are labeled as follows:

- A**: A horizontal shaft or crank arm.
- B**: A flywheel or large circular component attached to the shaft.
- C**: A connecting rod or lever arm.
- D**: A piston or plunger component.
- E**: A vertical cylinder or housing for the piston.
- F**: A valve or control mechanism at the bottom of the cylinder.
- G**: A base or support structure.
- H**: A horizontal support or frame member.
- I**: A vertical support or frame member.
- J**: A small component, possibly a pin or bolt.
- K**: A small component, possibly a pin or bolt.
- L**: A small component, possibly a pin or bolt.
- M**: A small component, possibly a pin or bolt.
- N**: A small component, possibly a pin or bolt.
- O**: A small component, possibly a pin or bolt.
- P**: A small component, possibly a pin or bolt.
- Q**: A small component, possibly a pin or bolt.
- R**: A small component, possibly a pin or bolt.
- S**: A small component, possibly a pin or bolt.
- T**: A small component, possibly a pin or bolt.
- U**: A small component, possibly a pin or bolt.
- V**: A small component, possibly a pin or bolt.
- W**: A small component, possibly a pin or bolt.
- X**: A small component, possibly a pin or bolt.
- Y**: A small component, possibly a pin or bolt.
- Z**: A small component, possibly a pin or bolt.

The drawing is labeled "Fig. 1." at the top, indicating it is the first view of the invention.



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UNITED STATES PATENT OFFICE.

ALONZO E. RHOADES, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY,
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PICKER-STICK CHECK FOR LOOMS.

No. 919,464.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed December 1, 1908. Serial No. 465,550.

To all whom it may concern:

Be it known that I, ALONZO E. RHOADES, a citizen of the United States, residing at Hopedale, county of Worcester, and State of Massachusetts, have invented an Improvement in Picker-Stick Checks for Looms, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object the production of a novel and very simple device for checking the movement of the picker-stick of a loom due to the impact of an incoming shuttle upon the picker.

When the shuttle enters the shuttle-box and strikes the picker the picker-stick is thrown outward, and such movement must be checked, but the checking action must be effected in such a manner that when the picker-stick is moved inward to pick the shuttle from the box movement of the picker-stick must not be impeded. My present invention fulfils these requirements, and while very simple in construction and operation it is very efficient in its checking action.

The novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a front elevation of a sufficient portion of the picker-stick motion of a loom to be understood, with my invention applied thereto, the checking means being shown in readiness to check further outward movement of the picker-stick. Fig. 2 is a detail in front elevation of the checking means, but as the same appears on the inward or operative stroke of the picker-stick.

In Fig. 1 the loom-side A, the picker-stick B, broken off at its upper end and having attached to its lower end the shoe C resting and rocking upon the stand D; the lay rocker-shaft E on the outer end of which the stand is fixedly mounted; the spring-barrel F and strap G connecting it with the lower end of the picker-stick, and the lug-strap H connecting the stick with the pick-motion, (partly shown at I) may be and are all of well-known or usual construction and operate in a manner familiar to those skilled in the art.

The checking means comprises two angularly movable members in frictional engagement, one member being connected with the

picker-stick to be oscillated thereby, and the other member is held from movement on the outward stroke of the stick so that the friction created by movement of one member against the other will check or retard the movement of the picker-stick. On the inward stroke of the latter both members move, so that there is no retarding action exerted upon the stick to interfere with its proper cooperation with the shuttle.

In the present embodiment of my invention I have shown the stand D provided with a rigidly attached arm having branches 1 and 2, and upon said branches the checking members are pivotally mounted at 3 and 4, the member 5 being preferably made as a casting having a convex face 6 and a depending tail 7, angular movement of said member being limited by a lateral lug or stop 8 on the branch 1. The member 5 is resting on said stop in Fig. 1, and manifestly is thereby held stationary against any force tending to depress it, while it is free to rise until the tail 7 hits the stop 8. The opposed checking member 9, also made as a casting and pivotally mounted at 4 on the branch 2, has a convex face 10, preferably surfaced with leather or other suitable friction-producing material, the convex faces of the two members being in substantially tangential engagement with each other. Said engaging or friction faces are practically circular arcs struck from the respective centers of the two members 5 and 9, the radius of the face 10 being the longer, and said face is also made of greater length than the face 6, as shown. An upturned arm 11 on the member 9 is pivotally connected with the picker-stick by a link 12 which is threaded to screw into a socket 13 jointed to the picker-stick, Fig. 1, whereby the length of the link can be adjusted as may be necessary.

The operation of the checking means will be obvious, when the impact of the shuttle swings outward the picker-stick in the direction of the arrow, Fig. 1, the member 9 will be swung downward on its pivot 4 and the face 10 will rub over the stationary face 6 of the member 5, held from movement by the stop 8, the friction created by the rubbing of one face against the other checking outward movement of the picker-stick B. On its inward stroke the picker-stick acts through link 12 to raise the checking member 9, and as the member 5 is free to rise it will be

swung upward, see Fig. 2, by contact with member 9, with practically no resistance, and as the upward swing of said member continues its face 10 is disengaged from the face 6 of the member 5, the latter dropping by gravity onto the stop 8 in readiness for the next checking action upon the picker-stick.

Various changes or modifications may be made by those skilled in the art without departing from the spirit and scope of my invention as set forth in the claims annexed hereto.

Having fully described my invention, what I desire to secure by Letters Patent is:—

1. The combination, with the picker-stick of a loom, and a support upon which it is mounted to rock, of two pivotally mounted checking members in substantially tangential engagement, a connection between one of said members and the picker-stick to rock said member when the picker-stick swings in and out, and means to hold the other checking member stationary on the outward stroke of the picker-stick, to check the latter by or through frictional engagement of the relatively moving checking members,

2. The combination, with the swinging picker-stick of a loom, of opposed checking members pivotally mounted with their axes parallel and having convex faces adapted to rub one against the other, means to rock one member by movement of the picker-stick, and means to hold the other member stationary on the outward stroke of the picker-stick, to check the latter by the friction due to relative movement of the checking members.

3. The combination, in a loom, of a swinging picker-stick opposed and separately pivoted checking members having convex faces in rubbing engagement with each other,

means to rock one member by movement of the picker-stick, and means to permit the other checking member to rock on the inward stroke, and to hold it stationary on the outward stroke of the picker-stick, whereby the latter is checked on its outward stroke by frictional engagement of the checking members with each other.

4. In a loom, in combination, a swinging picker-stick, two opposed checking members having convex faces in substantially tangential engagement, parallel and relatively-fixed pivots on which said members are mounted to rock, a connection between one member and the picker-stick, to rock said member, and means to prevent rocking movement of the other member when the picker-stick is moved outward, to check the stick by frictional engagement between the checking members, inward movement of the picker-stick causing the connected checking member to first move and then release the other checking member.

5. The combination, with the picker-stick of a loom, of two frictionally engaging, angularly-movable checking members, a connection between the picker-stick and one of said members to oscillate it as the picker-stick moves inward and outward, and means to prevent angular movement of the other checking member on the outward stroke of the picker-stick and to permit angular movement of such member by engagement with the other member on the inward stroke of the stick.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALONZO E. RHOADES.

Witnesses:

GEO. W. BASSETT,
EDWARD DANA OSGOOD