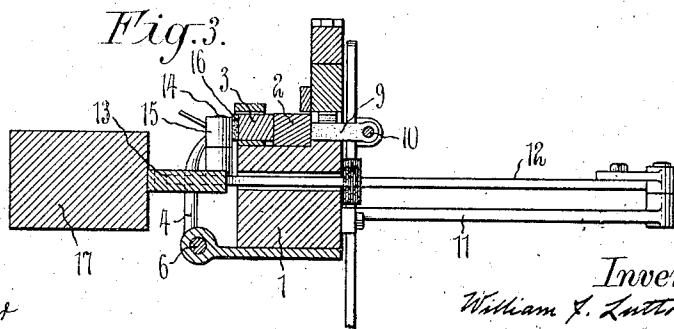
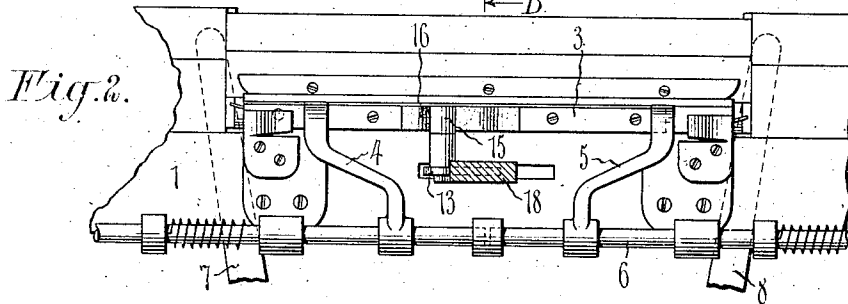


LOOM.

1,054,699.

Patented Mar. 4, 1913.



Harry J. Fleischer
J. George Barry

William F. Lutton
by his attorneys
Brown & Seward

BEST AVAILABLE COPY

UNITED STATES PATENT OFFICE

WILLIAM J. LUTTON, OF PATERSON, NEW JERSEY.

LOOM.

1,054,699.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed May 23, 1912. Serial No. 699,192.

To all whom it may concern:

Be it known that I, WILLIAM J. LUTTON, a citizen of the United States, and resident of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement in Looms, of which the following is a specification.

My invention relates to looms and more particularly to the mechanism which co-operates with the shuttle at the middle shuttle-box on a double loom, with the object in view of preventing any rebound of the shuttle when the loom is run at a high speed.

My present invention is an improvement on the structure shown, described and claimed in my Patent No. 986073, issued March 7, 1911, and consists in providing means for positively holding the shuttle binder shown, described and claimed in the Letters Patent referred to, in its binding position so that it may not become displaced by jar and thereby permit the shuttle to move from its position at the limit of its run.

In the accompanying drawings, Figure 1 is a plan view of so much of a loom as will serve to show a practical embodiment of my invention. Fig. 2 is a vertical section in the plane of the line A—A of Fig. 1, and Fig. 3 is a transverse section in the plane of the line B—B of Fig. 1.

The lay beam is denoted by 1, and is provided with a suitable raceway in which the shuttle 2 slides, the shuttle being bound at the limit of its run by means of a tilting binder 3, held yieldingly in the path of the shuttle 2, by means of spring-pressed arms 4 and 5 on the rock shaft 6.

The picker sticks are denoted by 7 and 8. The picker stick 7 is one of a pair for operating the shuttle on the left hand side of the double loom as the drawings are held, its mate not being shown, and 8 is one of a pair of picker sticks at the right hand side of the double loom, its mate not being shown.

The picker is denoted by 9, and is mounted on a rod 10 supported at the back of the beam 1, in suitable brackets, so that the picker may be slid along the rod when struck by the picker sticks and in turn may drive the shuttle along its run.

The parts hereinabove described may be

of any well known or approved form; for example of the form shown, described and claimed in my patent hereinabove referred to.

To the back of the beam 1, a bracket arm 11 is attached, to which bracket arm there is pivoted a swinging arm 12, which passes through the lay beam 1, with its free end preferably rounded and tapered as shown at 13, and projected beyond the beam 1. A pin 14 projects laterally from the swinging arm 12 and carries a roller 15 which projects into the recess 16 in the tilting binder 3, and serves to support the binder in either one or the other of two tilted positions. The roller 15 has a play in the recess 16 and as the swinging arm 12 is swung, the roller 15 engages the one or the other end of the recess 16, and slides the tilting binder 3 into position to receive the shuttle from the one or the other of two opposite directions. On a stationary beam 17 of the loom frame, there is fixed a tapered lug 18, with each of the slanting opposite sides of which the rounded tapered nose 13 of the swinging arm 12 engages as the lay beam 1 and the parts carried thereby successively approach the beam 17.

The swinging arm 12 is provided with a buffer 19, built up of leather or other suitable material and lying in the path of the picker sticks so that as the latter approach the limits of their strokes, they will engage the one or the other of the opposite ends of the buffer 19 and swing the arm 12 in a direction to carry the tilting binder 3 into position to receive and bind the shuttle. As the lay beam approaches the fixed beam 17 and the tapered lug 18 thereon, the tapered end 13 of the swinging arm 12 will ride down a slanting side of the lug 18, and thereby force the tilting binder 3 snugly into position to receive the shuttle and lock the tilting binder temporarily in that position against any possibility of displacement under jar until the said tilting binder is again relieved by the swing of the lay beam away from the fixed beam 17. When the lay beam again approaches the fixed beam 17, the swinging arm will have been swung by the picker stick into position to engage the opposite side of the tapered lug and will in like manner ride down with that

side and lock the tilting binder 3 in position to hold the shuttle received in the opposite direction.

What I claim is:

5 1. In a loom, the combination with a shuttle box common to shuttles from opposite sides of the loom, of a tilting binder, means for moving the binder bodily in a longitudinal direction along the box and
10 means for locking the binder in its tilted shuttle receiving position.

2. In a loom, the combination with a shuttle box common to shuttles from opposite sides of the loom, of a tilting binder,
15 means for moving the binder bodily in a longitudinal direction along the box and a fixed piece in position to coact with the binder moving means to lock the binder in its shuttle receiving position.

20 3. In a loom, the combination with a shuttle box common to shuttles from opposite sides of the loom, of picker sticks, a tilting binder, a support for the tilting binder under the control of the picker sticks
25 to move the binder bodily along the box and means for positively locking the binder in tilted shuttle receiving position.

4. In a loom, the combination with a

shuttle box common to shuttles from opposite sides of the loom, of a swinging arm 30 forming a support for the tilting binder and under the control of the picker sticks, to be swung in each of two opposite directions and a tapered fixed part in position to coact with the said swinging arm to lock 35 the tilting binder in its shuttle receiving position.

5. In a loom, the combination with a shuttle box common to shuttles from opposite sides of the loom, of a tilting binder, a 40 swinging arm for moving the binder bodily in a longitudinal direction along the box, the said arm being provided with a tapered free end and a tapered fixed piece in position to coact with the tapered free end of 45 the swinging arm to lock the said binder in its shuttle receiving position.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twenty first 50 day of May, A. D. 1912.

WILLIAM J. LUTTON.

Witnesses:

CHARLES F. MOREHEAD,
MARGARET A. RUEGGERBERG.