(No Model.)

G. PARK & J. H. McNAB.

LOOM TEMPLE.

No. 455,112. Patented June 30, 1891.

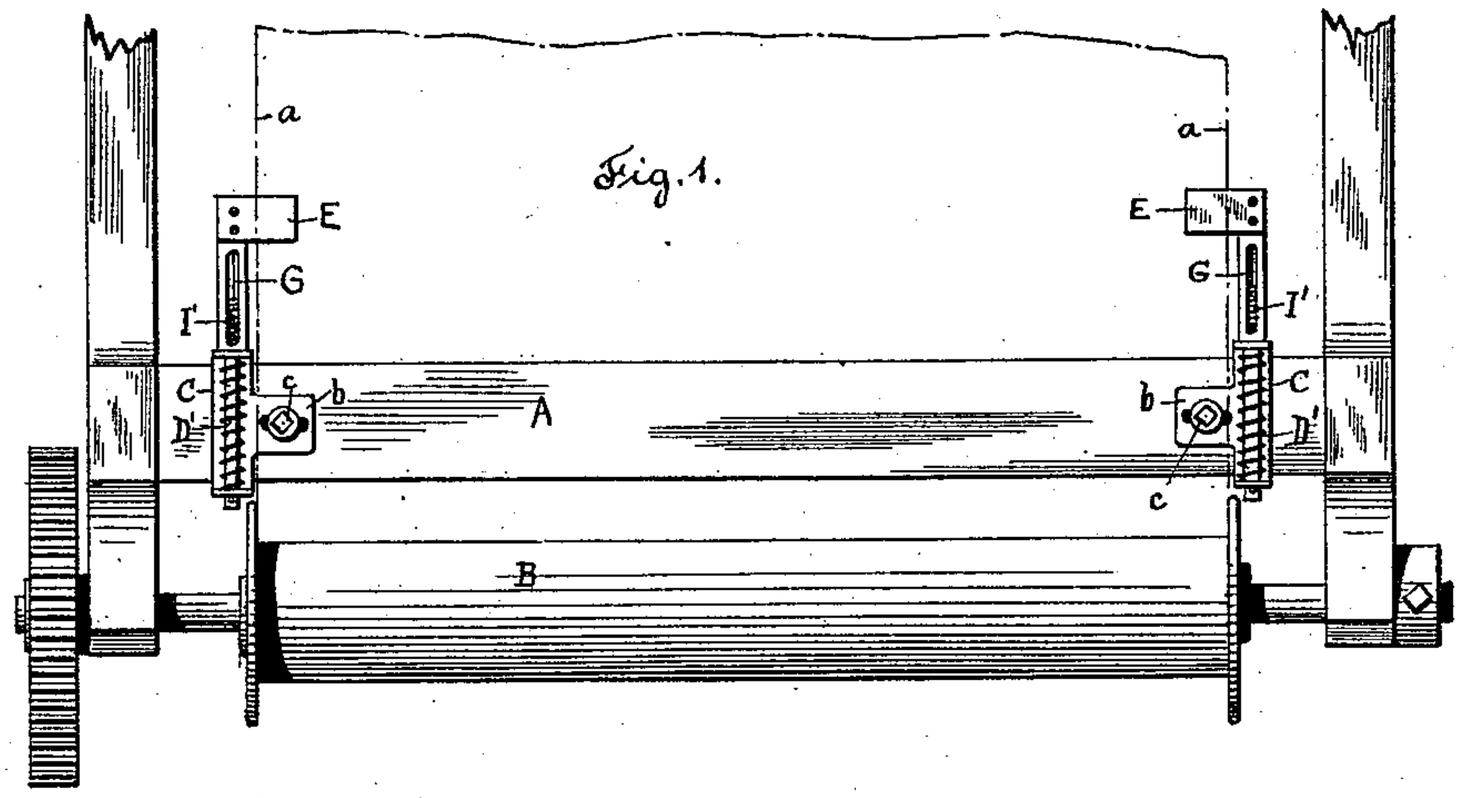

Fig. 1.

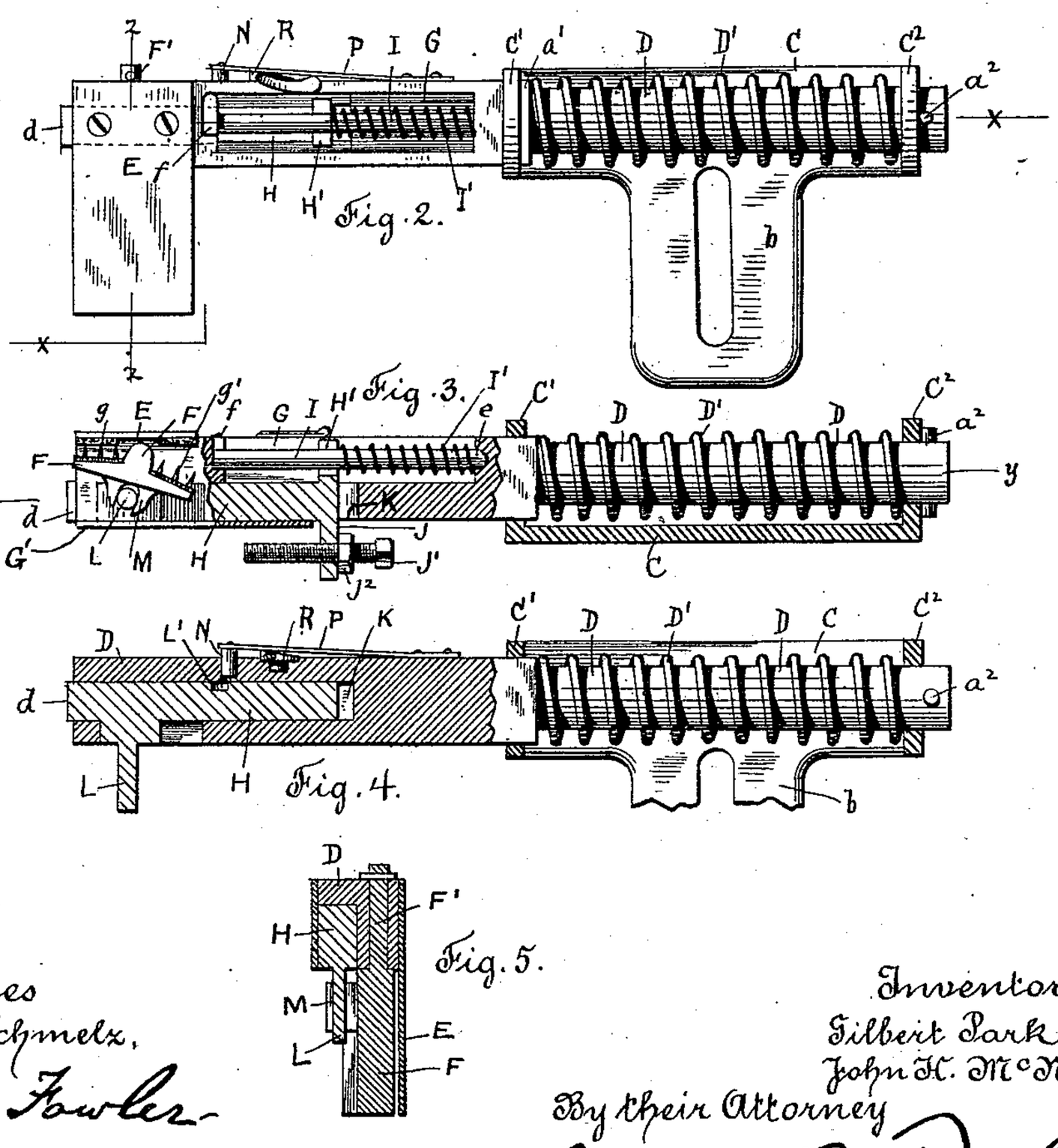

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Witnesses
Chas. F. Schmelz,
H. M. Fowler.

Inventors
Gilbert Park,
John H. McNab,
By their Attorney
Rufus B. Fowler.

UNITED STATES PATENT OFFICE.

GILBERT PARK, OF NORTHBOROUGH, AND JOHN H. McNAB, OF CLINTON, MASSACHUSETTS.

LOOM-TEMPLE.

SPECIFICATION forming part of Letters Patent No. 455,112, dated June 30, 1891.

Application filed September 24, 1888. Serial No. 286,264. (No model.)

To all whom it may concern:

Be it known that we, GILBERT PARK, a resident of Northborough, in the county of Worcester and State of Massachusetts, and JOHN H. McNAB, a resident of Clinton, in the county and State aforesaid, both citizens of the United States, have invented a new and useful Improvement in Loom-Temples, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a top view of the breast-beam of a loom with our improved loom-temple attached thereto. Fig. 2 is a top view of our improved loom-temple enlarged from Fig. 1 and detached from the breast-beam. Fig. 3 is a central sectional view on line X X, Fig. 2. Fig. 4 is a sectional view on line Y Y, Fig. 3; and Fig. 5 is a sectional view on line Z Z, Fig. 2.

Similar letters refer to similar parts in the several views.

In the accompanying drawings, in which we have represented only such portion of a loom as will illustrate the mode of attachment and operation of our improved loom-temple, A denotes the breast-beam, B the take-up roll, and the broken lines *a a* indicate the edge or selvage of woven fabric.

C is a plate provided with a slotted flange *b*, through which we place a bolt C, attaching it to the top of the breast-beam. Lugs C′ C² project upwardly from the upper surface of the plate C, through which passes a sliding bar D, that portion inclosed in and sliding through the lug C′ being square in its cross-section to prevent the bar from turning. The bar from the square section to the end is round and is surrounded by a spiral spring D′, placed between the shoulder *a′* and the lug C², so that its tension shall force the bar D outward until held by a pin *a²* in the end of the bar C. The action of the spring holds the bar D in the position shown in Figs. 1 and 2, at the same time allowing the bar D to slide in whenever the outer end of the bar is struck by the shuttle in the forward swing of the lay, which is liable to occur in case the shuttle is not thrown entirely across the race and into the shuttle-box. The construction of this part of the temple is, however, similar to those now in use and forms no part of our present invention. The outer end of the bar D is provided with a flange E, which projects over the edge of the woven fabric, as shown in Fig. 1.

Beneath the flange E is a plate F, having a rocking motion about a gudgeon F′, held in a bearing in the bar D. The upper surface of the rocking plate is beveled in opposite directions and provided with teeth extending upward a short distance to engage the woven fabric as it is held between the rocking plate F and the under side of the flange E. Sliding within a chamber G in the bar D is a short bar H, having a forked lug H′, extending upwardly and inclosing a rod I, held in the bar D, upon which is a spiral spring I′, placed between the lug H′ and the end wall of the chamber, so that its tension will serve to carry the sliding bar H toward the outer end of the bar D.

The chamber G is partially closed upon its lower side by a plate G′, leaving at its rear end an opening K, through which an arm J projects downward from the bar H, capable of a sliding motion within said opening. As the bar H is pressed forward by the action of the spiral spring I′ upon the lug H′, its motion is limited by the contact of the arm J with the rear end of the plate G′. The arm J carries an adjusting-screw J′, which is held in the path of the lay at its forward swing, so that the contact of the lay with the screw J′ will move the bar H inwardly, compressing the spiral spring I′.

A pin L projects from the side of the sliding bar H and engages a lug M on the under side of the rocking plate F, by means of which the sliding motion of the bar H, produced in one direction by the impact of the lay against the screw J′ and in the opposite direction by the spring I′, will impart a rocking motion to the plate F and bring the inclined or beveled surfaces in position so that their teeth will engage alternately with the woven fabric between the rocking plate F and the flange E, and as the plate F in its rocking motion assumes a position parallel with the plate E, its teeth will at this moment be entirely disengaged from the woven fabric, allowing the fabric at the forward beat of the lay to pass

between the plate F and the plate E to the take-up roll B.

The bar H in its normal position, as shown in the drawings, is made to project slightly beyond the bar D, as shown at *d*, Figs. 2, 3, and 4, so that should the end of the bar D be struck by the shuttle, compressing the spring D′, the projecting end of the bar H will receive the impact of the shuttle, forcing it in and rocking the plate F half-way, or so that the under side of the plate F will be parallel with the under side of the flange E, thereby disengaging all the teeth in the plate F from the woven fabric and allowing the bar D to be forced in without moving the fabric. The side of the bar H opposite that having the pin L is provided with an opening to receive a sliding pin N, held in the bar D. P is a blade-spring attached at one end to the side of the bar D, with its free end resting upon the end of the sliding pin N to force it into the opening L′.

R is a cam rotating on a stud in the side of the bar D, the side of the cam being so formed that a partial rotation of the cam will press the spring P away from the side of the bar D and withdraw the pin N from the opening L′. The rod *l* is removable from its position in the bar D, being held by means of a socket *e*, into which one end of the rod is inserted, while the opposite end is held in place by means of a button *f*. The lug H′ being open at the top allows the rod *l* to be removed in case it becomes necessary to replace the spring, or for any other purpose. The opening L′ in the side of the bar H is in such position that the engagement of the sliding pin N therewith will hold the bar H in position to maintain the rocking plate in a position parallel with the flange E and with its teeth withdrawn from the woven fabric between the rocking plate and flange. The adjusting-screw J′ has a check-nut J^2 for the purpose of securely holding it in position, and also allowing it to be adjusted so that the forward swing of the lay will rock the plate F, disengaging the teeth *g* and engaging the teeth *g′*.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a loom-temple, the combination, with bearings adapted to be attached to the rigid frame-work of the loom, of an arm having a sliding motion in said bearings and provided with a flange adapted to project over the edge of the woven fabric, a rocking plate placed beneath said flange with its upper surface inclined in opposite directions and provided with teeth to engage the woven fabric, and connected actuating mechanism by which said plate is rocked, substantially as described.

2. In a loom-temple, the combination, with bearings adapted to be attached to the rigid frame-work of the loom, of an arm having a sliding motion in said bearings and provided with a flange to project over the edge of the woven fabric, a rocking plate placed beneath said flange and provided with teeth to engage the woven fabric, a bar sliding in said arm and provided with a pin engaging a lug on said rocking plate, said bar being adapted to be actuated in one direction by the motion of the lay, and a spring by which the motion of said bar is reversed, substantially as described.

3. In a loom-temple, the combination, with bearings adapted to be attached to the rigid frame-work of the loom, of a sliding arm sliding in said bearings and provided with a flange to project over the edge of the woven fabric, a rocking plate placed beneath said flange and provided with teeth to engage the woven fabric, a sliding bar having a projecting pin engaging a lug on said rocking plate, and an adjusting-screw carried by said sliding bar to receive the impact of the lay, substantially as described.

4. In a loom-temple, the combination, with bearings adapted to be attached to the rigid frame-work of the loom, of an arm sliding in said bearings, a toothed rocking plate arranged to engage the woven fabric, a sliding bar held in said sliding arm and operatively connected with said rocking plate, said sliding bar projecting a short distance beyond said sliding arm, so as to receive the impact of a shuttle in advance of said arm, thereby rocking said toothed plate and releasing the woven fabric, substantially as described.

5. In a loom-temple, the combination, with a rocking toothed plate by which the woven fabric is engaged, of the sliding-bar H, operatively connected with said rocking plate, and the latching mechanism comprising the sliding pin N, spring P, and cam R, substantially as described.

6. In a loom-temple, the combination, with sliding bar H, operatively connected with the cloth-engaging mechanism, substantially as described, of the spring I′ and rod I, removably held by a button *f* and socket *e*, substantially as described.

GILBERT PARK.
JOHN H. McNAB.

Witnesses:
RUFUS B. FOWLER,
C. M. CARROLL.