(No Model.)

N. T. HALL.

DEVICE FOR DETECTION OF BREAKS IN WARP THREADS.

No. 547,209. Patented Oct. 1, 1895.

Fig. 1.

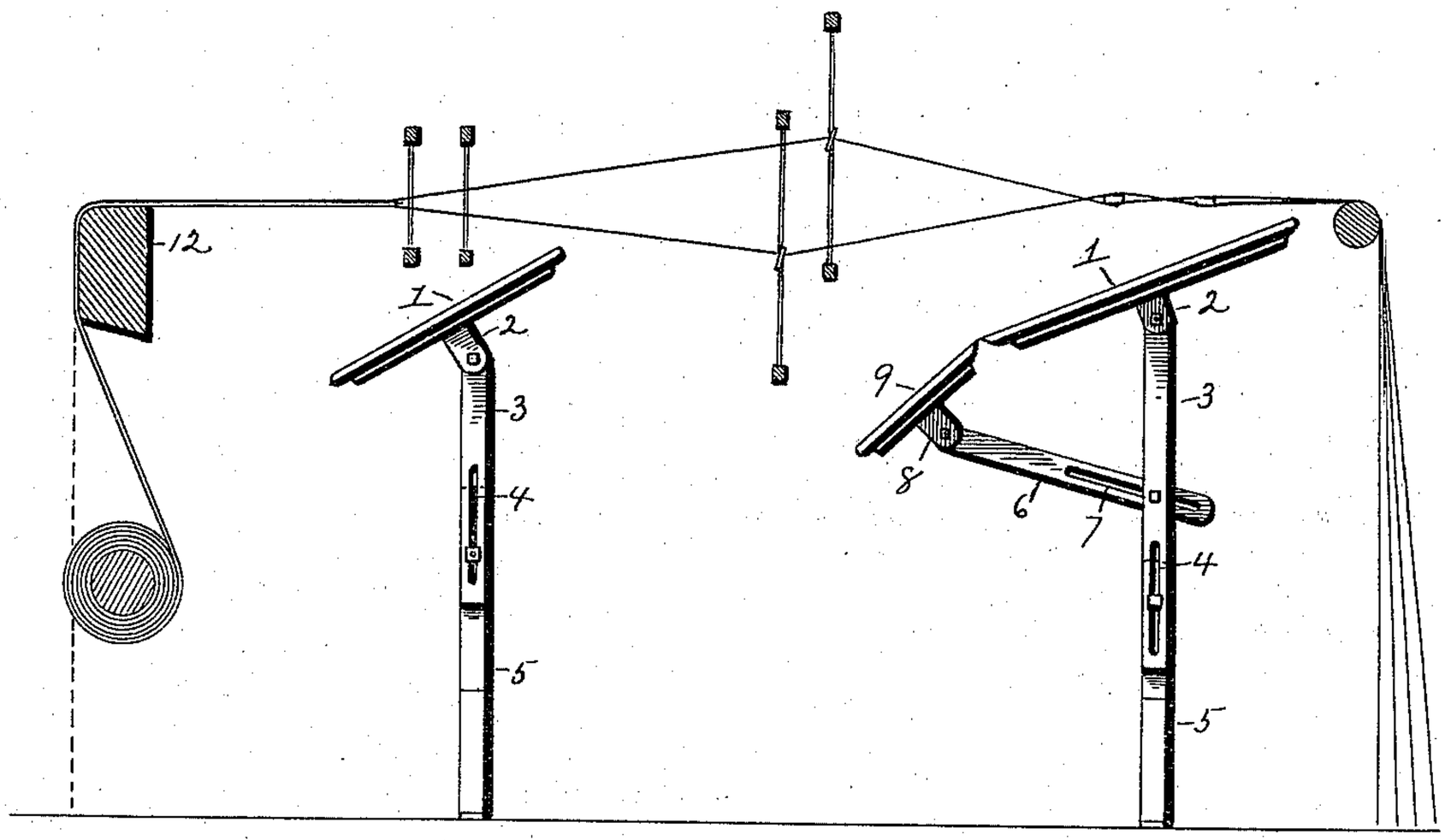

Fig. 2.

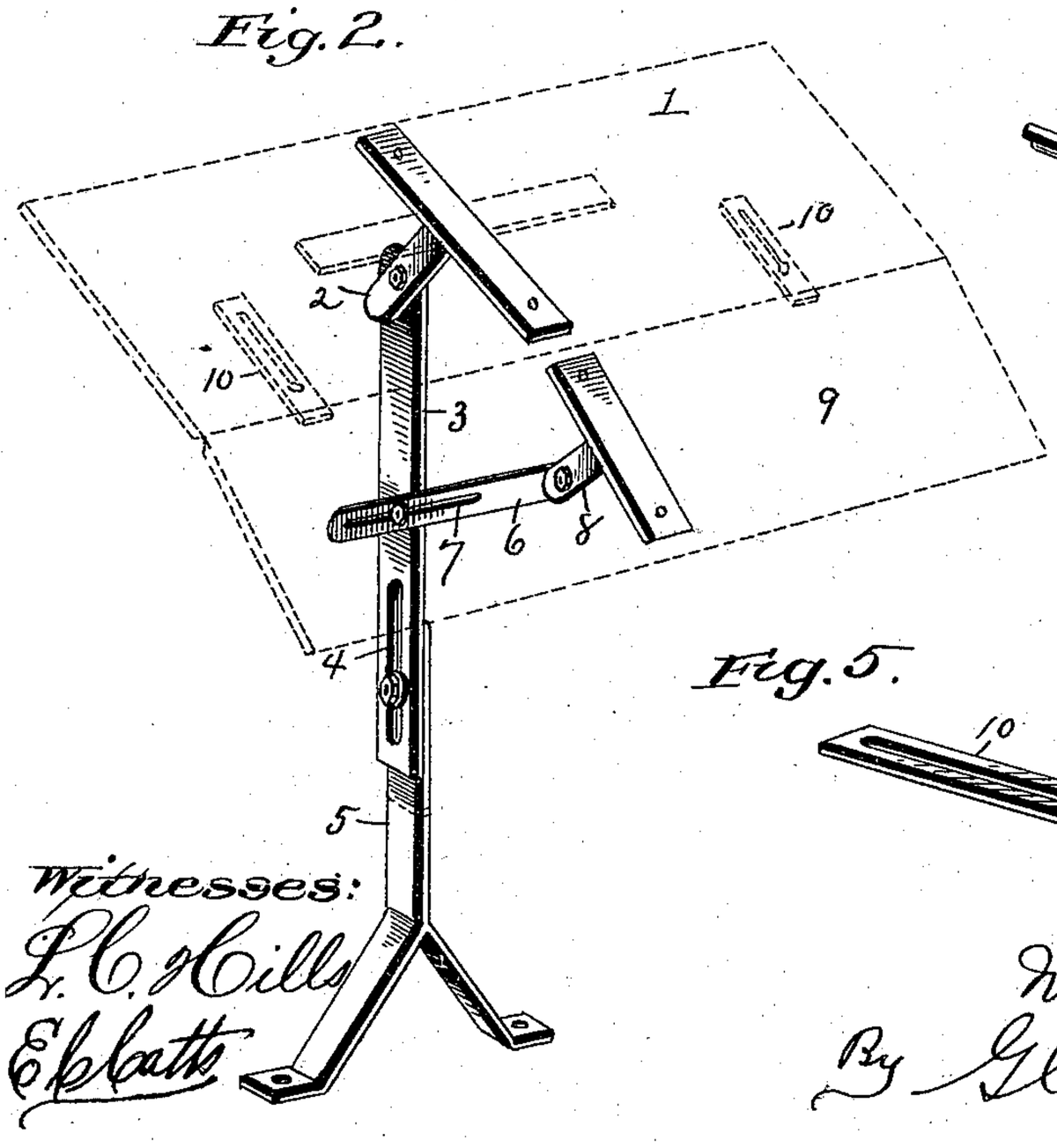

Fig. 3.

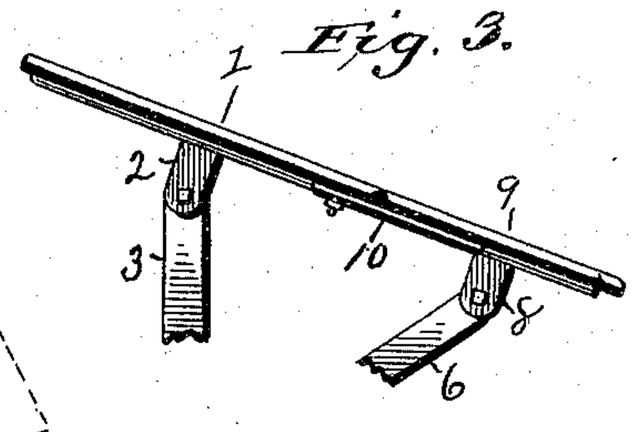

Fig. 5.

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UNITED STATES PATENT OFFICE.

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DEVICE FOR DETECTION OF BREAKS IN WARP-THREADS.

SPECIFICATION forming part of Letters Patent No. 547,209, dated October 1, 1895.

Application filed June 7, 1895. Serial No. 551,985. (No model.)

To all whom it may concern:

Be it known that I, NEY TUCKER HALL, a citizen of the United States, residing at Cleveland, in the county of Bradley and State of Tennessee, have invented a certain new, useful, and valuable Improvement in Devices for the Detection of Breaks in Warp-Threads, of which the following is a full, clear, and exact description.

My invention has relation to devices adapted to facilitate the detection of breaks in the warp-threads of looms; and it consists in the novel construction and arrangement of its parts, as hereinafter described.

In the accompanying drawings, Figure 1 is a sectional representation of a loom, showing the device in position. Fig. 2 is a perspective view of the device. Fig. 3 is a side view of the upper part of the device. Fig. 5 is a detail view of a part that will be explained hereinafter.

The broad flat part 1 is provided on its under surface with a shank 2. Said shank is pivotally connected to the upright 3. The connection is formed by means of a set-screw passing through the two parts and adapted to be impinged against each. The lower end of the upright 3 is provided with an elongated perforation 4. The upright 3 is pivotally and adjustably secured to the foot 5 by means of a bolt passing through the perforation 4 and a perforation in the upper part of the foot. The foot may be shaped as shown in the heavy lines of Fig. 2 and adapted to be secured to the floor. An arm 6, having an elongated perforation 7, is pivotally and adjustably secured to the upright 3, the connection being similar to that between the parts 3 and 5. To the extreme end of the arm 6 is pivotally secured the shank 8, to which in turn is secured a second broad flat part 9.

The parts 1 and 9 are independent of each other, but they can be brought together at their edges, as shown in Figs. 1, 2, and 3, and may be inclined at any desired angle independent of each other, or they may be extended in the same plane, as shown in Fig. 3. The edges of the parts 1 and 9, that are next to each other, are preferably beveled, as shown, in order that the parts when coming together at an angle might form an unbroken surface on top.

The under side of the part 1 is provided with the sliding supports 10 10, which are adapted to pass under the part 9 when the parts 1 and 9 are extended in the same plane. (See Fig. 3.) Fig. 5 is a perspective view of the part 10. Said part is secured to the part 1 by means of a bolt passing through the elongated perforation, said bolt being located in the part 1.

The device above described is adapted to be placed under the warp-thread behind the heddles, as shown in Fig. 1, and a corresponding device, minus parts 6, 7, 8, 9, and 10, can be placed under the warp-threads in front of the heddles. (Also shown in Fig. 1.)

The color of the upper surface of the parts 1 and 9 is different than that of the warp-thread, and when the thread breaks it falls upon the parts and the break is readily detected and can be repaired.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device adapted to facilitate the detection of breaks in the warp thread of weaving machines, the same consisting of a part having a broad flat surface of a different color than that of the warp thread, said part being located beneath the warp thread, a support independent of the weaving machine, secured at its lower end to a stationary point, said part being pivotally connected to said support, as set forth.

2. A device adapted to facilitate the detection of breaks in the warp thread of weaving machines, the same consisting of a part having a broad flat surface of a different color than that of the warp thread, said part being located beneath the warp thread, an upright pivoted to said part, a suitable foot pivoted to said upright, as set forth.

3. A device adapted to facilitate the detection of breaks in the warp of weaving machines, the same consisting of a part having a broad flat surface of a different color than

that of the warp thread, said part located beneath the warp thread, a support pivotally connected at its upper end to said part; a second part similar to first said part, said second part being also pivotally connected to the support of the first said part, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

NEY TUCKER HALL.

Witnesses:
WM. SENIVE,
E. T. HALL.