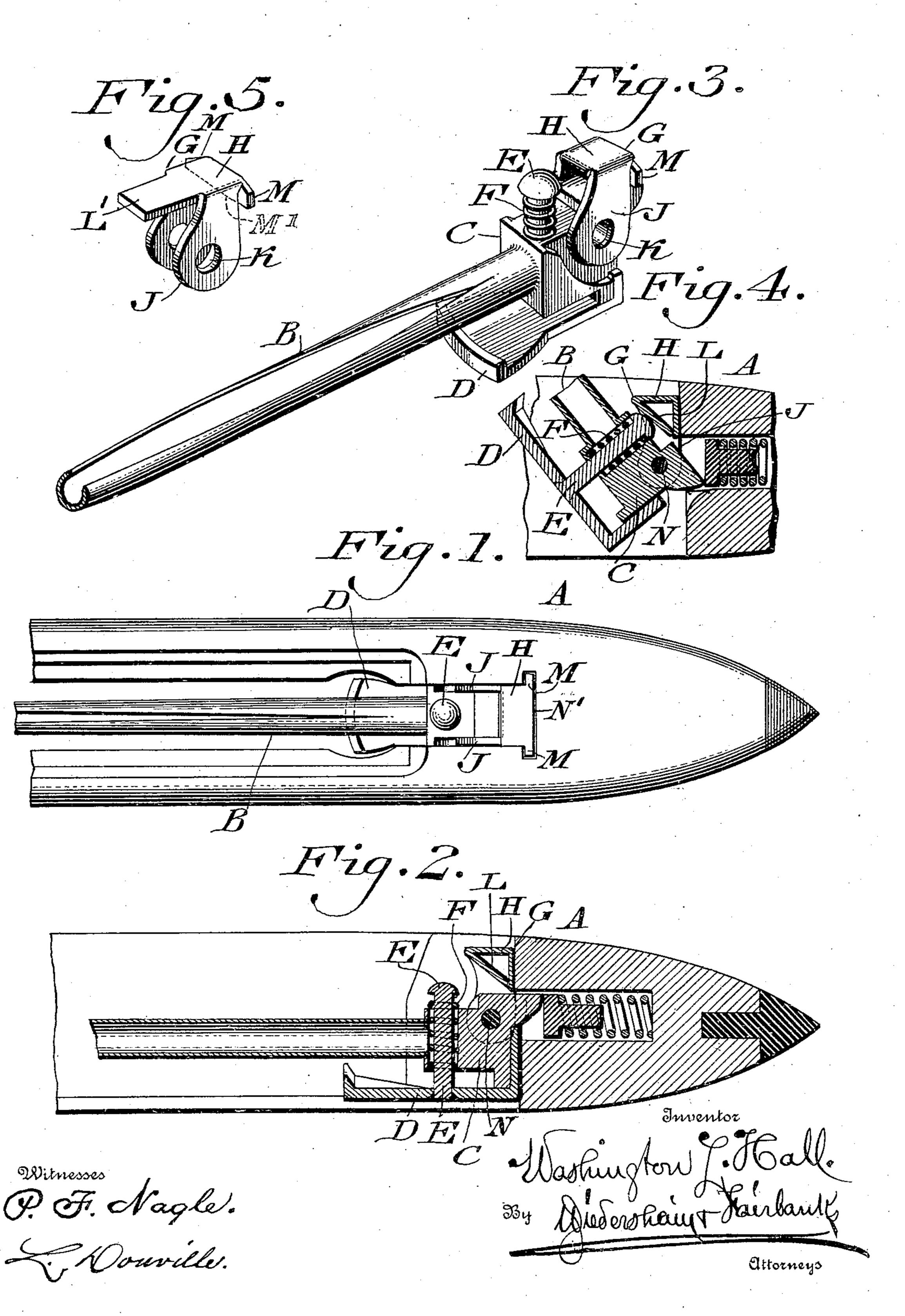
## W. L. HALL. LOOM SHUTTLE. APPLICATION FILED NOV. 6, 1906.



## UNITED STATES PATENT OFFICE.

WASHINGTON L. HALL, OF PHILADELPHIA, PENNSYLVANIA.

## LOOM-SHUTTLE.

No. 869,778.

Specification of Letters Patent.

Patented Oct. 29, 1907.

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To all whom it may concern:

Be it known that I, Washington L. Hall, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a 5 new and useful Loom-Shuttle, of which the following is a specification.

My invention relates to an improvement in a loom shuttle and consists in providing an abutment of novel construction for the pin which serves to release the 10 locking or holding device of the bobbin or for the spindle, said abutment thus preventing breaking out of and injury to the wood or material of the body of the shuttle when throwing up the spindle, as will be hereinafter described.

Figure 1 represents a top or plan view of a portion of a shuttle embodying my invention. Fig. 2 represents a longitudinal section thereof. Fig. 3 represents a perspective view of a portion of the shuttle detached from the body thereof. Fig. 4 represents a section of a portion showing certain parts in different position from that shown in Fig. 2. Fig. 5 represents a perspective view of a member of the device in primary condition.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings. A designates the body of a loom shuttle, B the spindle, C the spindle-carrying head, D the catch which is adapted to engage the bobbin, E the sliding pin which is mounted in said head and connected with said catch and F the spring which bears against the head of said pin to hold the catch in operative position, which features are well known in the art.

G designates an abutment for said pin E, the same consisting of the top plate H, the side ears J, openings 35 K in said ears, the obliquely-extending wall L below said plate and the laterally-extending lips M, said members H, J, L and M being integral of sheet metal, said wall L in primary condition being shown as at L' in Fig. 5, it being bent into position under the plate H, 40 as shown in Figs. 2 and 4, the lips M being on the bentdown back piece M' of the abutment, but to the material of which the abutment is composed nor to the style of the spindle, I do not limit myself.

In the present case the axial pin N of the head is 45 passed through the openings or eyes K of the ears J thus supporting the abutment and the lips M occupy the recess N<sup>1</sup> in the body A, thus preventing shifting or displacement of the abutment, it being noticed that the wall L is located above the head C in such a manner that when the spindle is thrown up to remove an empty bobbin or place a full bobbin, the head of the pin E strikes the wall L and rides on the same, thus moving the catch D and placing it in position to apply or release the bobbin, usual in such cases, but the wall L

relieves the wood or body of the shuttle of the thrust of 55 said pin and so prevents injury to the same which renders it worthless, it being evident that the abutment is of strong and inexpensive construction, it may be easily applied, firmly held in position, conveniently removed and when fractured replaced by a new member. 60

In cases where a shuttle is not provided with the pin E, the abutment directly receives the thrust of the spindle when raised.

While I have described certain means for carrying out my invention, I do not wish to be limited exactly 65 to the same but desire to make such changes as may come within the scope of the novelty involved.

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

1. In a loom shuttle, the combination with a spindle piv- 70 oted at one end, the pivot of said spindle, and a resiliently mounted bobbin-locking device mounted thereon, of an abutment for contact by said bobbin-locking device and disposed over the pivoted end of said spindle and mounted on the pivot thereof, said abutment embodying a wall to 75 receive, the thrust of the bobbin-locking device when raised, to prevent breakage of the body of the shuttle.

2. In a loom shuttle, a catch for the bobbin, a pin connected with said catch, a spindle-carrying head through which said pin is mounted to slide, a spring in said head 80 acting on said pin, an abutment for said pin mounted on the pivot of the spindle and having a wall with which the head of said pin engages, and means for supporting and connecting it with the body of the shuttle.

3. In a loom shuttle, a bobbin-holding catch having a 85 resiliently-mounted operating pin working through the head of said spindle, an abutment for said operating pin, comprising a top plate, side ears, means for mounting said ears on the pivet of the spindle, and a wall, the latter being under said top plate and directly engaging the end of 90 said operating pin.

4. In a loom shuttle, a bobbin-holding catch having a resiliently-mounted operating pin working through the head of said spindle, an abutment for said operating pin, comprising a top plate, side ears, means for mounting said 95 ears on the pivot of the spindle, and a wall, the latter being under said top plate and directly engaging the end of said operating pin, said wall being over the pivoted end of the spindle and obliquely extended with relation to the top plate.

5. In a loom shuttle, a spindle and its head, the shuttle and a catch, a pin carried by said catch and slidably mounted in said head, a spring acting on said pin, an abutment for said pin comprising a top plate, an obliquely extending wall beneath said top plate, ears by which said 105 abutment is mounted on the pivot of the spindle and a back plate having lips extending laterally and received in the recess in the body of the shuttle, said obliquely extending wall being disposed over the pivot of the spindle and being engaged by the end of the pin when the spindle is 110 moved upwardly.

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Witnesses:

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