

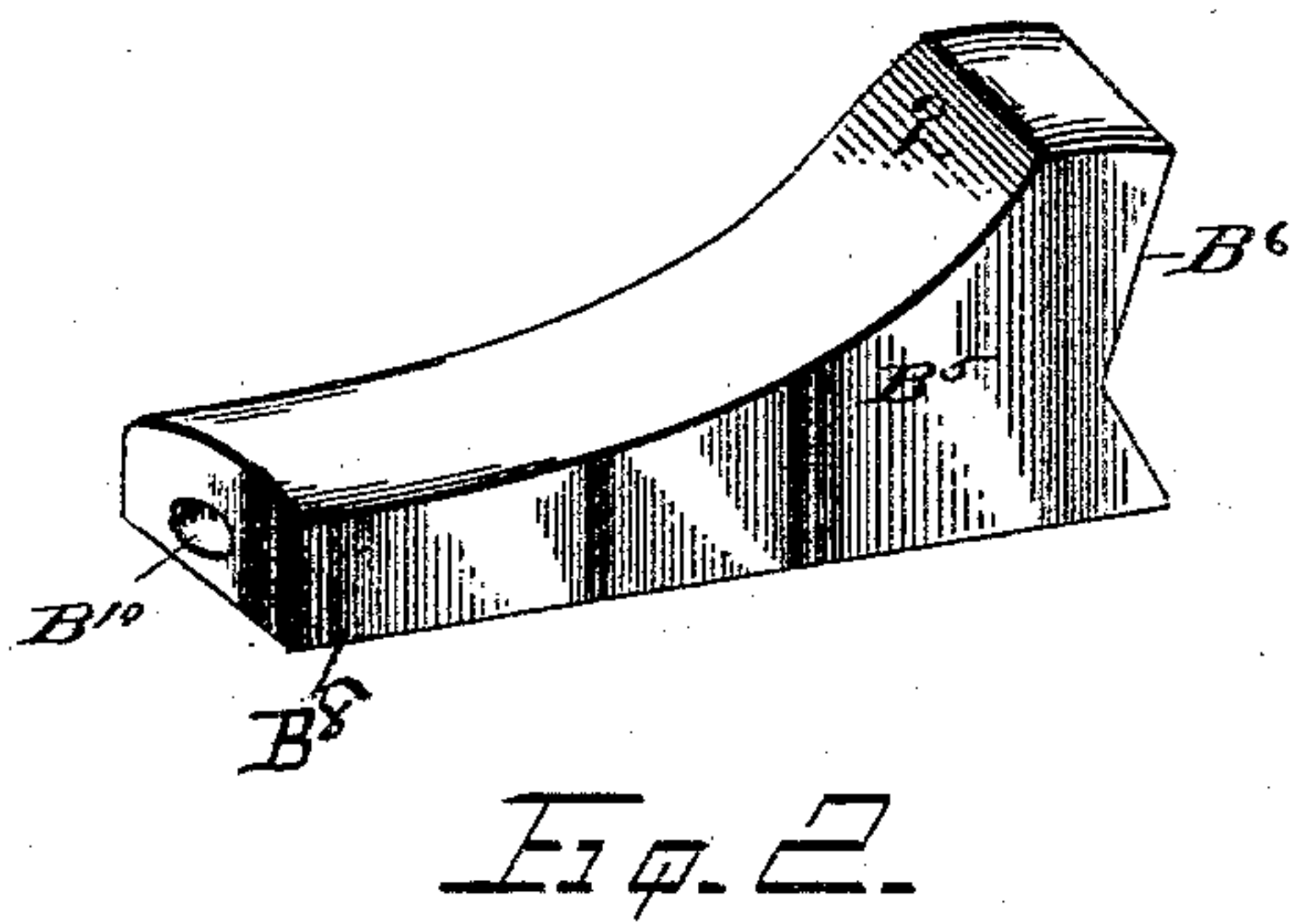
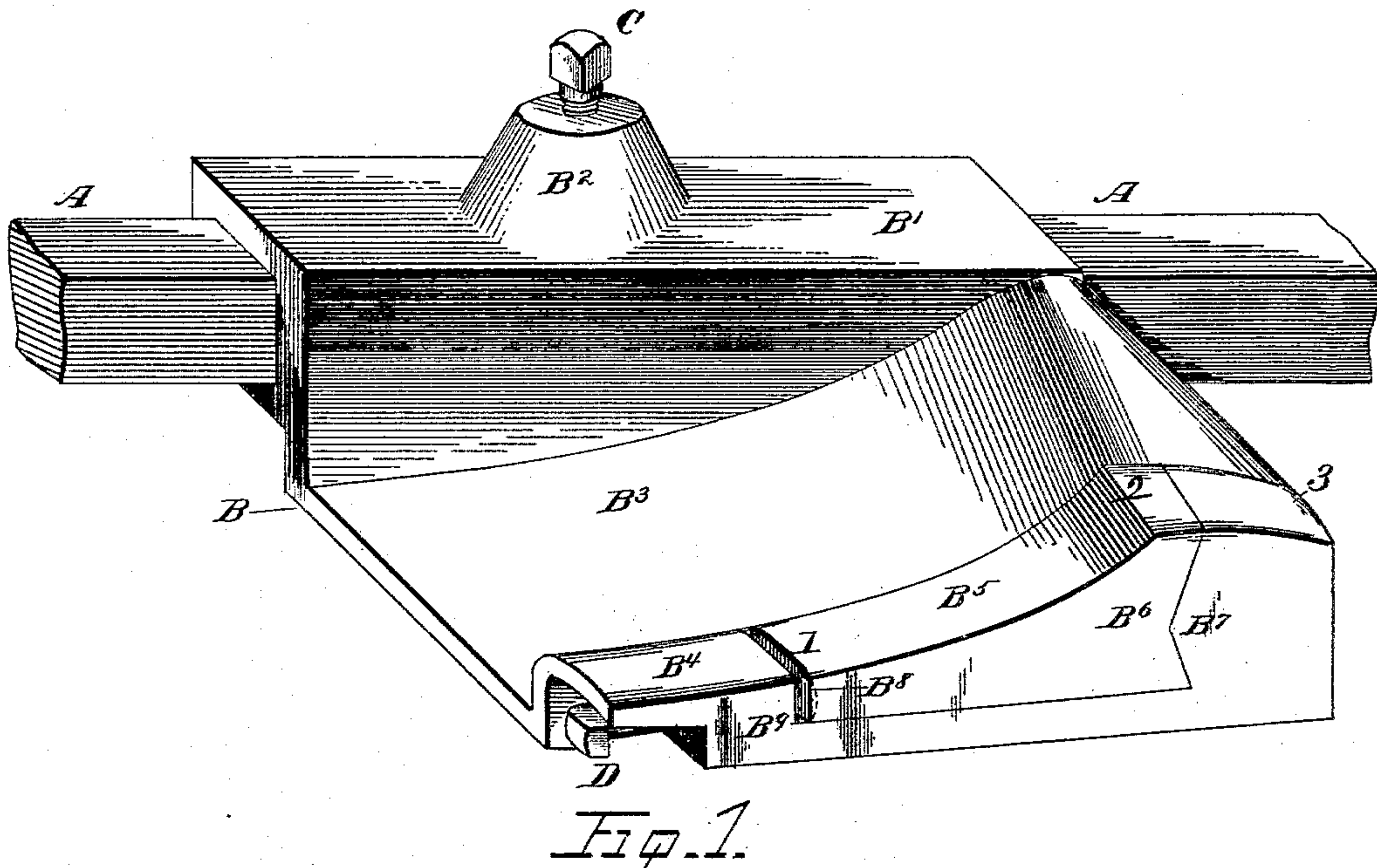
(No Model.)

J. L. INMAN & E. H. STEVENS.

PICKING SHOE FOR LOOMS.

No. 331,886.

Patented Dec. 8, 1885.



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UNITED STATES PATENT OFFICE.

JOHN L. INMAN AND EDGAR H. STEVENS, OF PUTNAM, CONNECTICUT.

PICKING-SHOE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 331,886, dated December 2, 1885.

Application filed August 14, 1884. Serial No. 140,577. (No model.)

To all whom it may concern:

Be it known that we, JOHN L. INMAN and EDGAR H. STEVENS, citizens of the United States, residing at Putnam, in the county of Windham and State of Connecticut, have invented certain new and useful Improvements in Picking-Shoes for Looms, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to what are known as "picking-shoes for looms." The picking shoe is a casting attached to a square shaft, which passes across the frame of the loom, and from which projects upwardly an arm or lever, which is connected with a picker-staff. For rocking this shaft the shoe receives an impulse generally from a revolving arm just above it, which carries a roller which strikes the shoe at each revolution, and pushes it downward. This rocks the shaft and gives the throw to the shuttle. These shoes have heretofore been made of cast-iron, and are rapidly worn out by the repeated blows of the roller which operates them.

The object of our invention is to provide a shoe which will be so constructed that when it becomes worn it may be quickly restored to its original shape, and this without the stoppage of the loom for an unnecessary length of time.

Referring to the drawings, Figure 1 is a perspective of a picking-shoe constructed in accordance with our invention, and a part of its carrying-shaft, and Fig. 2 is a perspective of the removable section of the shoe.

Like letters indicate like parts in both figures.

A represents a portion of the square shaft, which passes across the frame of a loom, and from which projects the arm or lever connected with and operating the picker-staff which throws the shuttle.

B represents the picking-shoe, and it consists of a single casting, with one exception, hereinafter described, and comprises a sleeve, B', adapted to fit the shaft A, said sleeve being provided with a boss, B², perforated and screw-threaded for the reception of a set screw or bolt, C, by which the sleeve portion of the shoe is securely bound to or fastened upon the shaft A. From the sleeve portion extends a plate or thin portion, B³, and this terminates

in an upwardly-projecting flange, B' B⁵, which constitutes the working-face or cam of the shoe, against which comes in contact the roller carried by the arm revolving above the shoe, as above described.

As the shoe is depressed by the arm, the roller first comes in contact with the point 1 of the cam, and as it rides along the section B⁵ and reaches the point 2, the shaft A is oscillated or partially turned, and as the roller passes off from the point 3 the shaft returns to its normal position.

In practice the cam or flange of the shoe soon wears away at the point 2 to such an extent that there is less than the required motion given to the shaft A, and therefore a new shoe is required, and this necessitates a stoppage of the loom for a time sufficient to remove the shaft and shoe, and replace the worn shoe by another.

A section, B⁵, of the cam portion of the shoe is, in a manner hereinafter described, adapted to be removed, and to be replaced by another, so that when repairs are necessary, the simple operation of removing said section and replacing another can be performed in much less time than the removal of the entire shoe. The front end of the section B⁵ is provided with a dovetail or V joint, B⁶, which is adapted to fit the shoe proper, which is formed with a similar outline or joint, B⁷. The opposite end, B⁸, of the section is formed concave or straight, to agree with a like formation of the shoe proper.

D represents a bolt, which passes through the casting and into a seat, B¹⁰, formed in the end of the section B⁵.

When it is desired to replace one of the sections B⁵ with another, all that it is necessary to do is to unscrew the bolt until its end is freed from the section, and withdraw the section sidewise from the recess formed in the shoe to receive it, and to replace another in the same manner, and secure it firmly in place by the bolt D, which is the work of but a few moments.

When the end B⁸ of the section B⁵ is square and the joint or portion B⁹ of the shoe is square, the section may be removed laterally, and at the same time be of such a length as to quite snugly fit the recess, terminating at the joints B⁷ B⁹. The section B⁵ may be removed, when

the joint is square, by lifting the end at the point 1 vertically, when the section is slightly shorter than the recess.

5 The joint B⁹ may be made convex and the joint B⁸ concave, as shown by dotted lines, Fig. 1, so that the section B⁵ may be removed vertically after the screw D is withdrawn by first lifting the end 2 vertically from the recess.

10 The vertical removal of the section is preferable to the lateral removal of the same when the latter would interfere with adjacent parts of the loom, and we therefore reserve the right to construct the joints of the cam-section at its screw-seated end for either vertical
15 or lateral removal.

To render the application, operation, and feasibility of our invention obvious, reference is given to the patent of Hall, granted June 1, 1869.

20 Having described our invention, what we claim is—

1. A picking-shoe for looms, the cam por-

tion of which is formed of two sections, one provided with a V-joint, B⁶, and the other provided with a similar joint, B⁷, and with a 25 tightening-bolt, D, substantially as specified.

2. The combination of the shoe B, comprising the sleeve B', the flange B³, and the cam portion B⁴, having the V-joint B⁷, and bolt D, with the section B⁵, having the V-joint B⁶, sub- 30 stantially as shown and described.

3. A picking-shoe for looms, provided at its cam portion with a section constructed for lateral removal, said section being provided with a V-shaped joint at one end adapted to 35 fit a similar joint provided on the body of the shoe, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN L. INMAN.

EDGAR H. STEVENS.

Witnesses:

EDWARD MULLAN,

HOWARD S. THOMPSON.