

(No Model.)

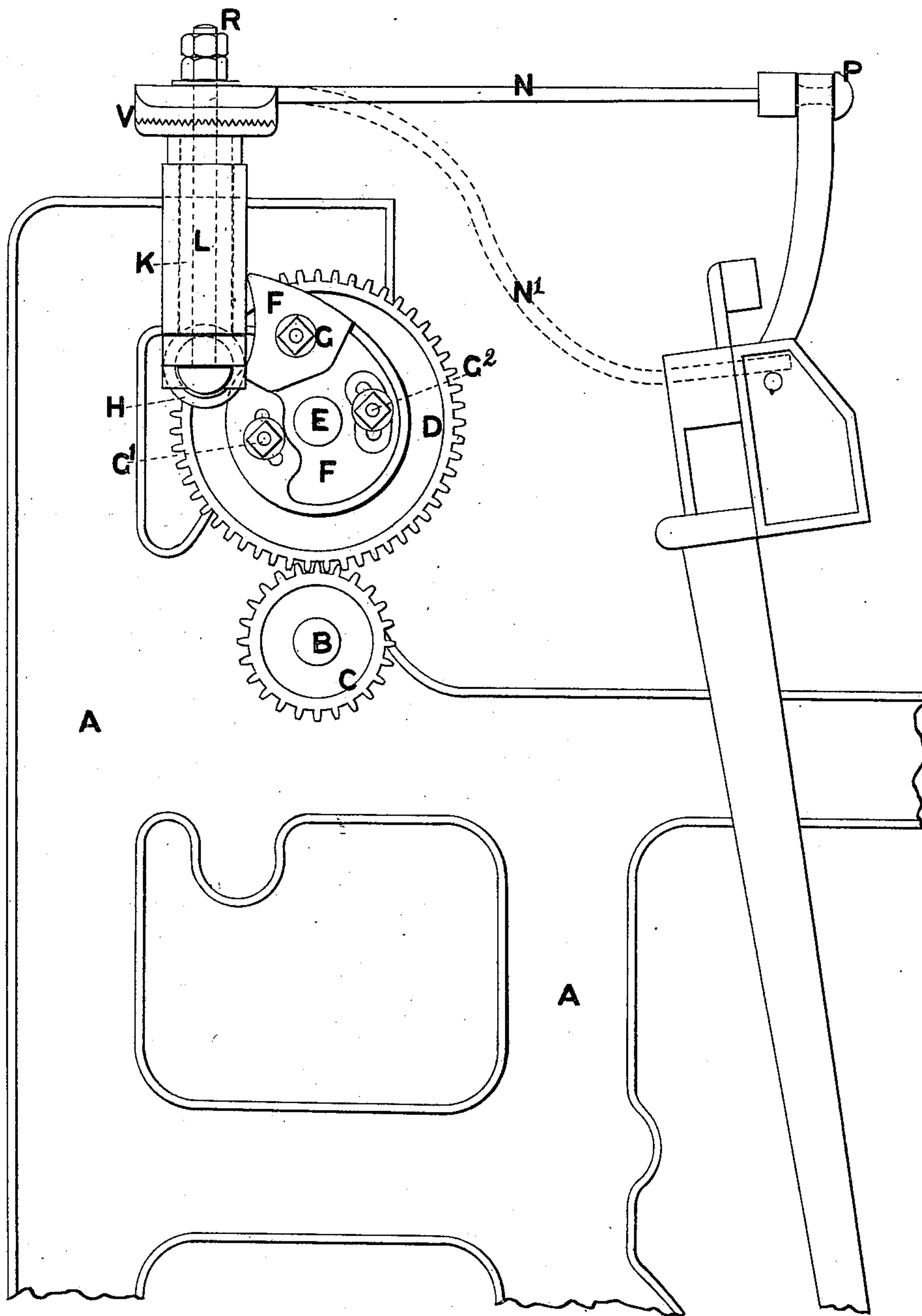
2 Sheets—Sheet 1.

J. MONK.
PICKING MOTION FOR LOOMS.

No. 408,501.

Patented Aug. 6, 1889.

FIG. 1



Witnesses
Thomas Butler
John F. Bickel

Inventor
J. M. Monk

(No Model.)

2 Sheets—Sheet 2.

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FIG. 2

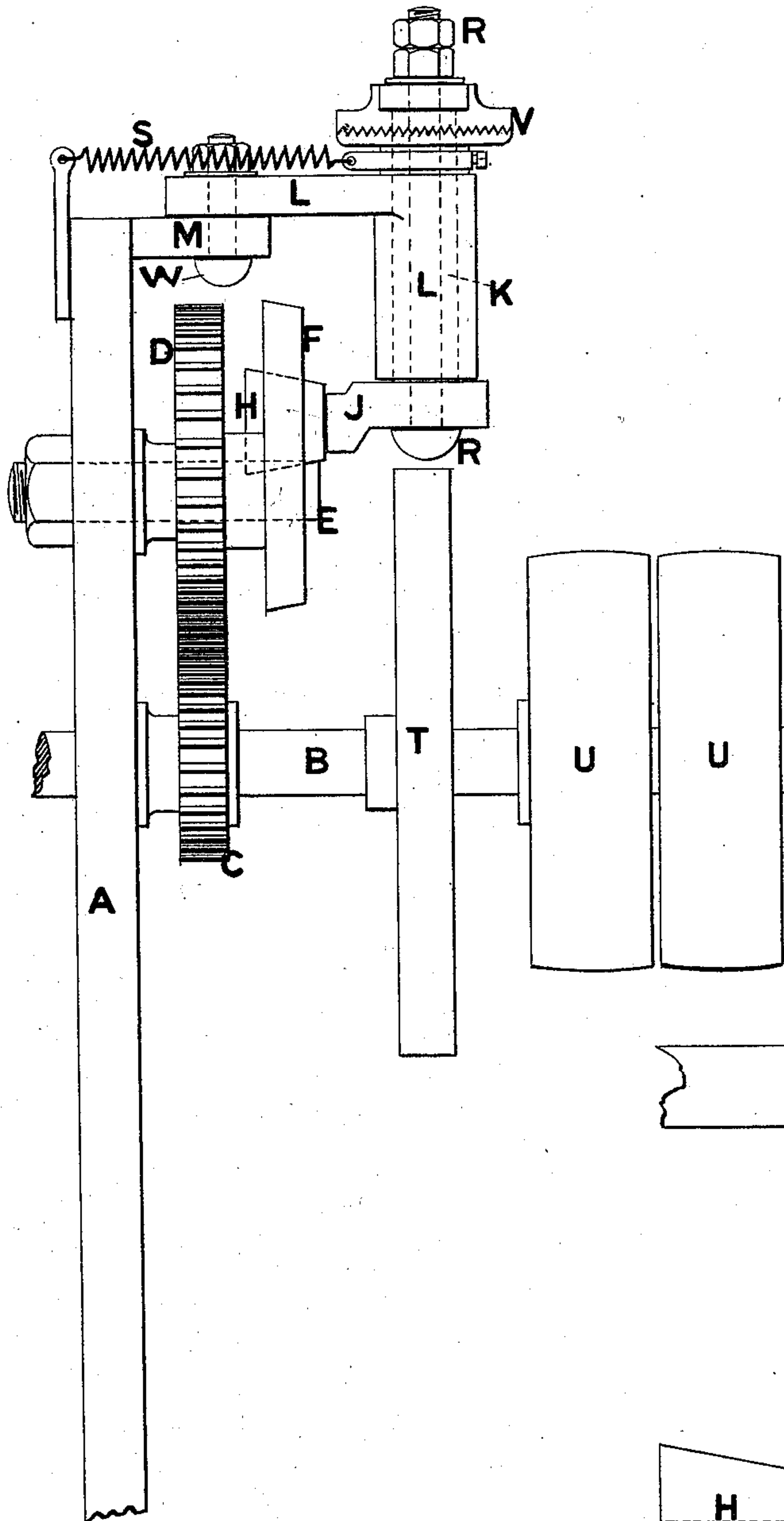
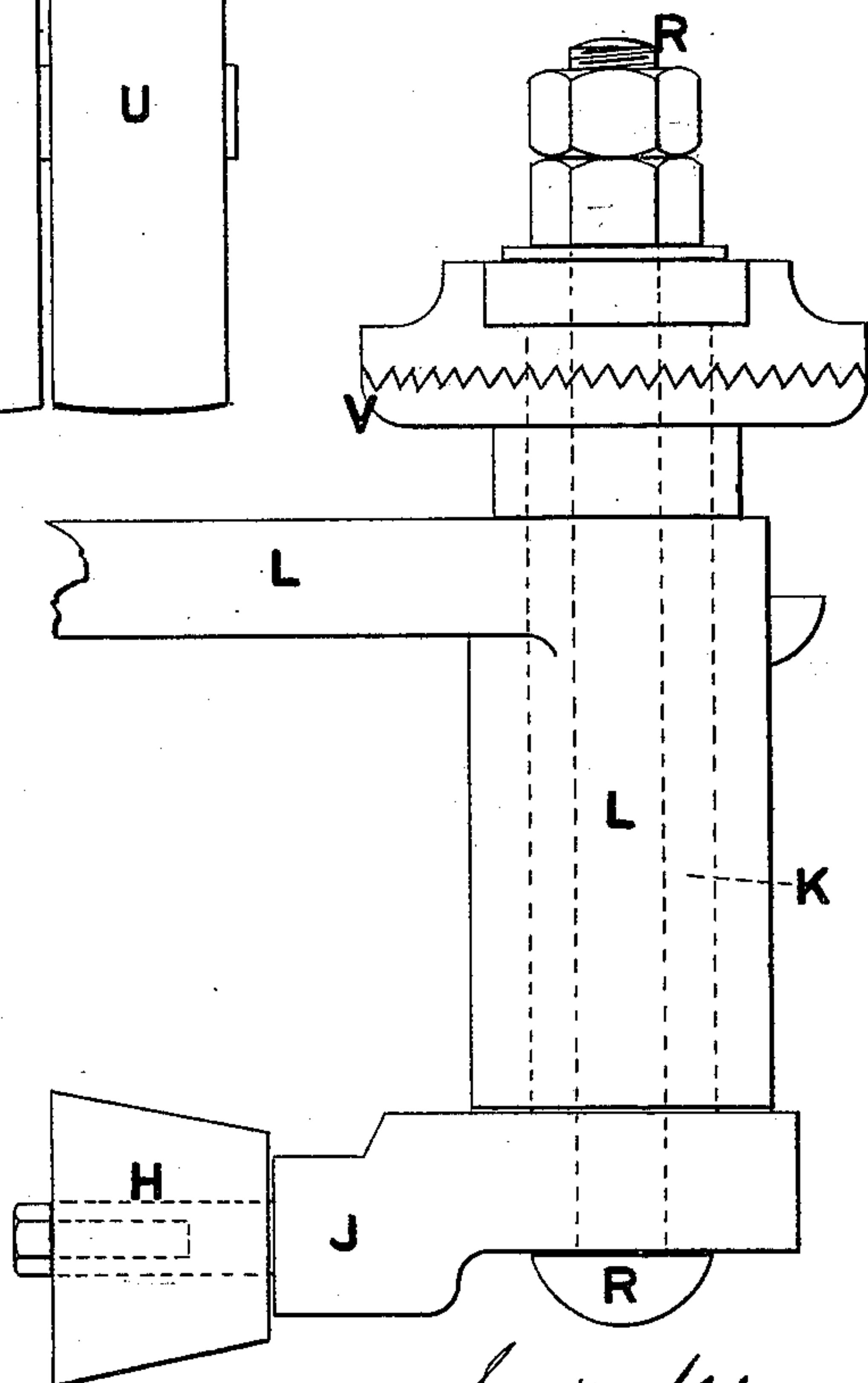


FIG. 3



Witnesses
Thomas Butler
John B. Buel

Inventor
John Monk

UNITED STATES PATENT OFFICE.

JOHN MONK, OF PRESTON, COUNTY OF LANCASTER, ENGLAND.

PICKING-MOTION FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 408,501, dated August 6, 1889.

Application filed July 11, 1888. Serial No. 279,617. (No model.) Patented in England October 20, 1887, No. 14,291.

To all whom it may concern:

Be it known that I, JOHN MONK, a subject of the Queen of Great Britain, residing at Preston, in the county of Lancaster, England, have
5 invented a new and Improved Picking-Motion for Looms for Weaving, (for which I have obtained a patent in Great Britain, No. 14,291, dated October 20, 1887,) of which the following is a specification.

10 This invention has for its object the simplifying of the picking-motion of looms for weaving, so that it may consist of fewer parts, occupy less space, be easier of access, and be more durable than any other arrangement
15 of such apparatus heretofore known to me.

Instead of employing the ordinary tappet-shaft driven by a wheel below the crank-shaft, as in ordinary overpick-looms, for actuating the picking-motion, I employ a wheel fixed
20 above the crank-shaft at each end of the loom, and called the "picking-block" wheel. This wheel is mounted upon a stud or bush fastened to the loom-frame. The wheel upon the crank-shaft at each end has only half the number of teeth to the picking-block wheel into
25 which it gears, so that the latter may perform only one revolution for the crank-shaft's two, the required motion for each alternate pick being thereby obtained.

30 I employ an ordinary picking-plate or picking-tappet fastened to the outer face of the picking-block wheel in any suitable manner and rotating with the wheel, the picking plate or tappet being provided with the usual sloping projecting part or nose, which at each
35 revolution strikes upon a picking-bowl arranged (according to this invention) upon a horizontal stud fastened to the lower extremity of a vertical stud or axis, or cast with the vertical stud mounted in a suitable bearing, and
40 which rotates and acts in the same manner as the ordinary picking-shaft. In addition to the stroke of the pick being regulated by the length of the nose of the picking-tappet, or
45 by the catch or clutch box, it can also be regulated by adjusting the bracket or bearing which carries the vertical stud, said bracket being made adjustable by means of a bolt and slot, as hereinafter described. The picking-
50 stick is attached to the upper part of the vertical swiveling stud or axis, and its outer end

may be so arranged as to work directly onto or through the picker, in which case the ordinary picking strap or band may be dispensed with.

55 The picking-stick may be made of steel, iron, or other metal, with the ends of wood or any other light material to carry the picking-band, or they may be made of wood, as ordinary.

The wheel-gearing and attendant mechanism, as above described, is so arranged at each
60 end of the loom as to perform the pick first at one end and then at the other, as will be understood.

The ordinary or any convenient arrangement of spring or equivalent device may be
65 employed for bringing each picking-stick and its bowl back to its former position after each pick.

Figure 1 is a side elevation of a loom-frame
70 with my picking-motion applied. Fig. 2 is an end view of Fig. 1, showing, also, the brake-wheel and driving-pulleys. Fig. 3 is an enlarged view of the picking-bowl, stud, and bracket.

75 A is the loom-frame.

B is the crank-shaft, upon which is the small pinion C, gearing into the picking-block wheel D (which has double the number of teeth)
80 upon the stud E. Upon the boss of the wheel is the picking-tappet F, which may either be constructed in two pieces secured together by the bolt G and fixed to the picking-block wheel by the bolts G' and G² or by other suitable means, or it may be made in one piece. This
85 picking-block, which is at right angles to the crank-shaft, operates upon and strikes the picking-bowl H, which is in a horizontal position upon the stud or axis J at the lower extremity of the vertical swiveling bush K, (in-
90 stead of the bush K a wrought shaft or stud might be used,) carried in the bracket L, which is secured to bracket M, projecting from the loom-frame A. The bracket L may be cast
95 upon the loom-frame, but is preferably adjustable on the bracket M, to which it is connected by means of a slot and bolt W, as shown in Fig. 2.

At the upper part of the vertical swiveling bush K is attached the picking stick or arm
100 N, which is preferably of steel or other metal, having a wood end P for holding the picking-

strap, or the picking-strap may be dispensed with by its outer end being arranged so as to work directly onto the picker, as shown by dotted lines N' on Fig. 1.

5 The bolt R passes through the bush K and picking-arm N and secures the whole together. The spring S returns the picking-arm after each stroke.

10 T is the brake-wheel, and U the driving-pulleys.

V is the catch or clutch box as employed in ordinary looms to regulate the pick.

15 Having fully described this invention, I would have it understood that I place the large wheel above the small wheel and the picking-bowl is held in a horizontal position. With this and the peculiar position of the vertical swiveling bush a very easy motion is obtained.

20 What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the frame A, having bracket M, the wheel D, the picking-tappet F, the vertically-swiveling bush K, the bracket L, in which the bush is carried, said bracket L having an adjustable connection with the bracket M, the picking-arm N, the stud J, carrying the picking-bowl H, and the bolt R, passed through and connecting said picking-arm, bush, and stud, substantially as shown and described. 25 30

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

JOHN MONK.

Witnesses:

THOMAS BIRKET,
Cashier, Preston.

JOHN BICKLE,
Clerk, Preston.