

M. H. CRITCHET.

Ditching and Tile laying Machines.

No. 156,451.

Patented Nov. 3, 1874.

Fig. 1.

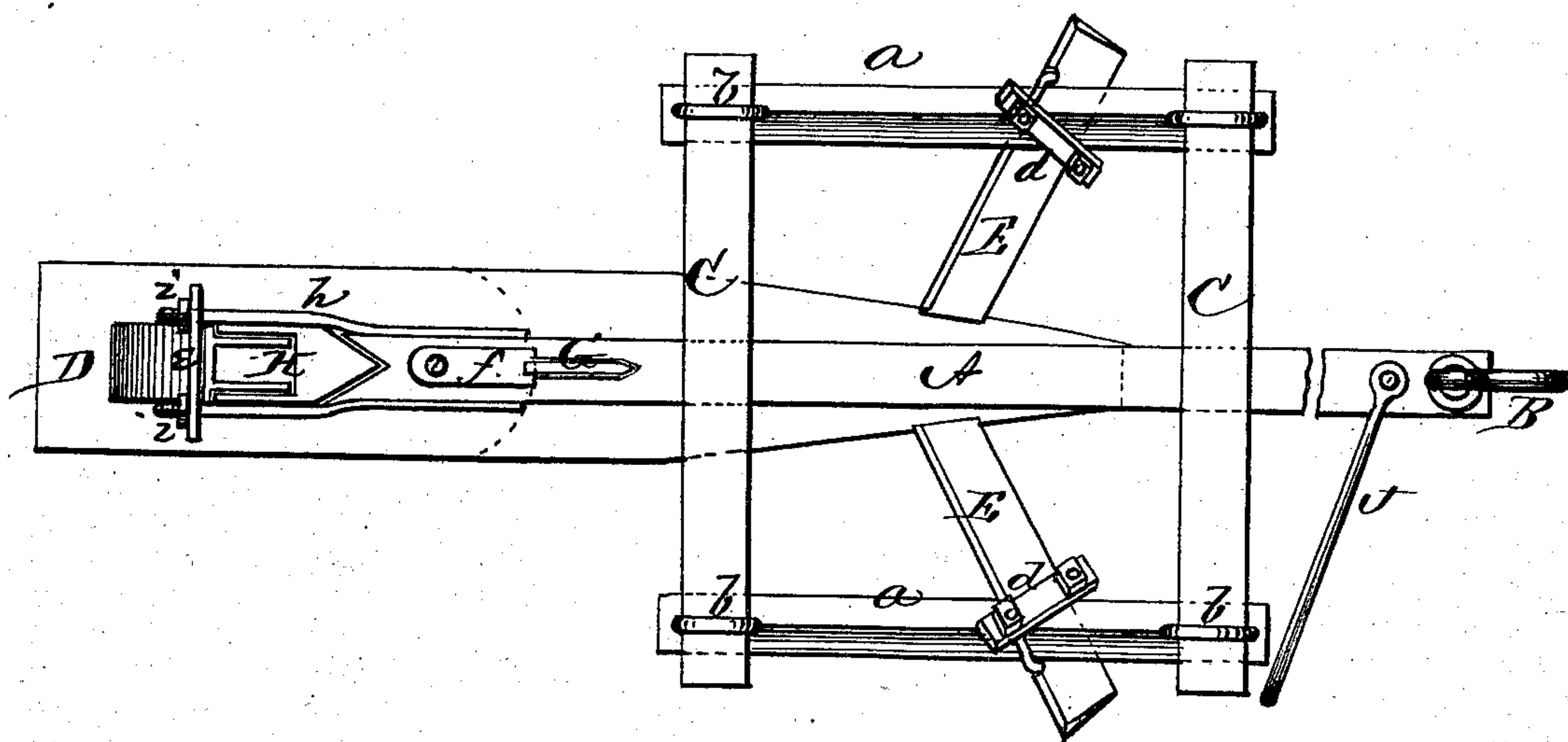
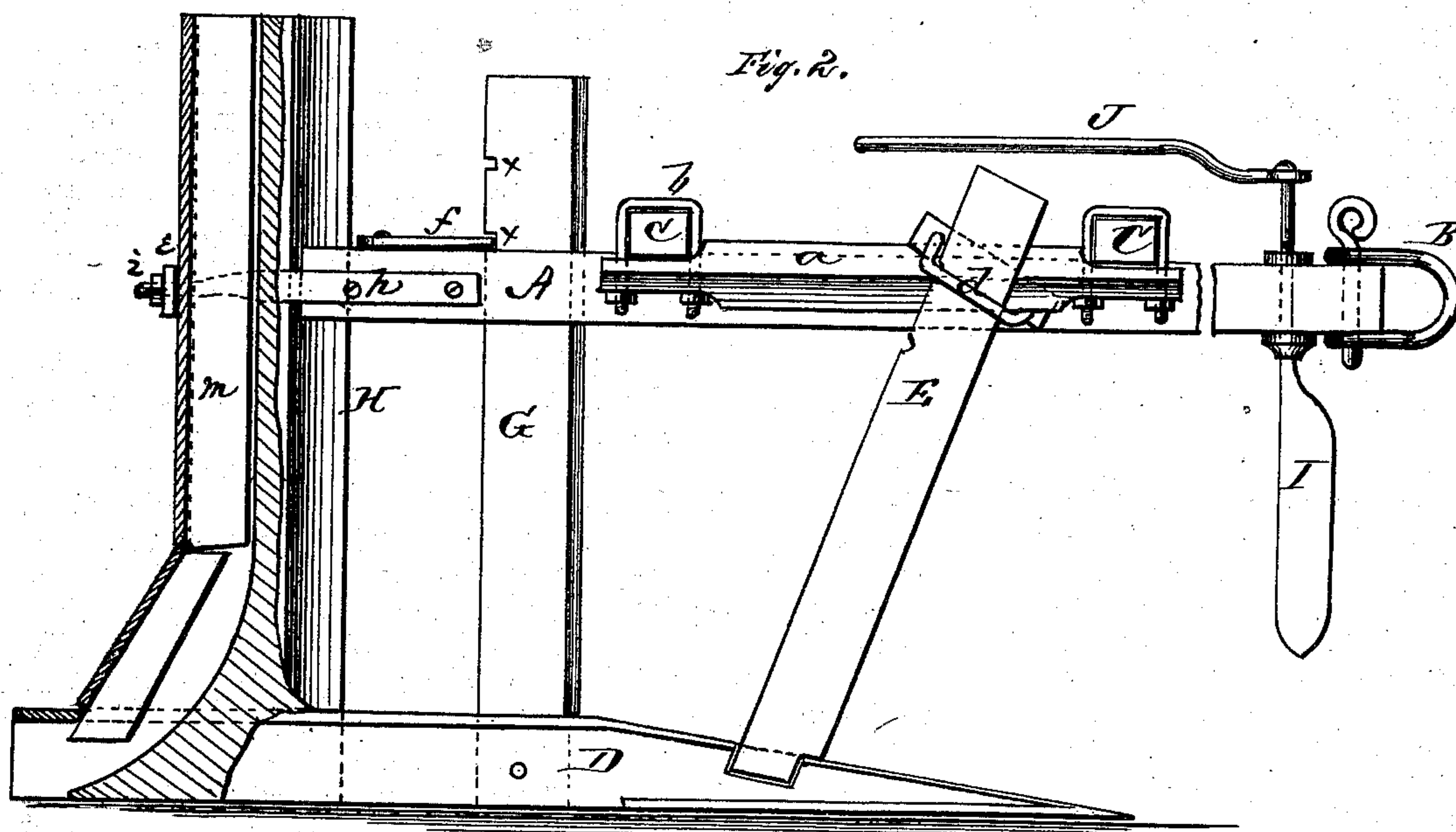


Fig. 2.



WITNESSES:

P. B. Dieterich.

H. C. McArthur

INVENTOR:

M. H. Critchet

per. J. H. Alexander

ATTORNEY.

# UNITED STATES PATENT OFFICE.

MATTHEW H. CRITCHET, OF NEWWAY, OHIO.

## IMPROVEMENT IN DITCHING AND TILE-LAYING MACHINES.

Specification forming part of Letters Patent No. **156,451**, dated November 3, 1874; application filed September 1, 1874.

*To all whom it may concern:*

Be it known that I, M. H. CRITCHET, of Newway, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Ditching and Tile-Laying Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for digging ditches and laying tiles, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, and Fig. 2 a side elevation, of my machine.

A represents the plow-beam, provided at its front end with any ordinary clevis, B, to which the team is to be hitched. On the beam A are secured two parallel cross-beams, C C, the ends of which are connected by bars *a a*, secured thereto by clips *b b*. D represents the plow, which is made in the shape shown, being flat on its under side, and the upper side inclined upward from the point backward for a suitable distance, and from such point the upper surface runs parallel with the lower, as shown in Fig. 2. The upper surface of the plow D increases in width from the point to where the inclination ceases, in such a degree that the horizontal part of the plow shall be double, or more than double, the width of the point of the plow. From near the point of the plow inclined cutters E E extend to the bars *a*, to which they are fastened by clips *d*. G is a rear colter, attached to the plow, and passing up through the beam A. This colter has a series of notches, *x*, in its rear edge, and is held by a latch, *f*, pivoted on the plow-beam, and entering either of said notches, to

hold the plow at any desired distance from the beam. In rear of the colter G is the tile-tube H, secured to the plow D, and held to the rear end of the beam A by two metal bars, *h*, attached to said beam, and passing, one on each side of the tube. A plate or bar, *e*, is passed over the ends of the rods *h*, and screws *i* placed on the ends thereof, whereby the tube is held firmly, and can easily be adjusted up and down, as desired. Along the rear side of the tube H are inserted guides *m*, which are to be changed according to the size of tile to be laid. Through the front end of the beam A passes a vertical revolving colter, I, provided at its upper end with a lever or handle, J, for turning the colter, and hence the plow, around curves.

The inclined side colters E E cut the sides of the ditch the same width, and the plow raises the earth to a certain height, when the center colter G cuts the thus raised earth in the center. The tube H then presses the earth toward both sides, and at the same time the tiles are fed down through the tube H, and as the plow passes on the earth falls down back of said tube, covering the tile.

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

1. The combination of the ditching-plow D and tile-tube H with adjustable guides *m*, to receive the tile vertically, and the center colter G, all as and for the purpose set forth.

2. The combination of the frame A C *a*, plow D, tile-tube H, center colter G, side colters E E, and adjustable colter I, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MATTHEW HARVY CRITCHET.

Witnesses:

B. L. CRITCHET,  
ELLEN N. CRITCHET.