

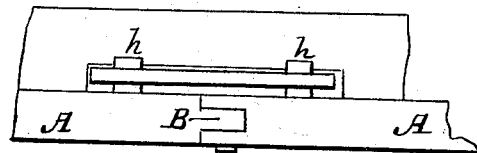
W. BUCKMINSTER.

Horse Rake.

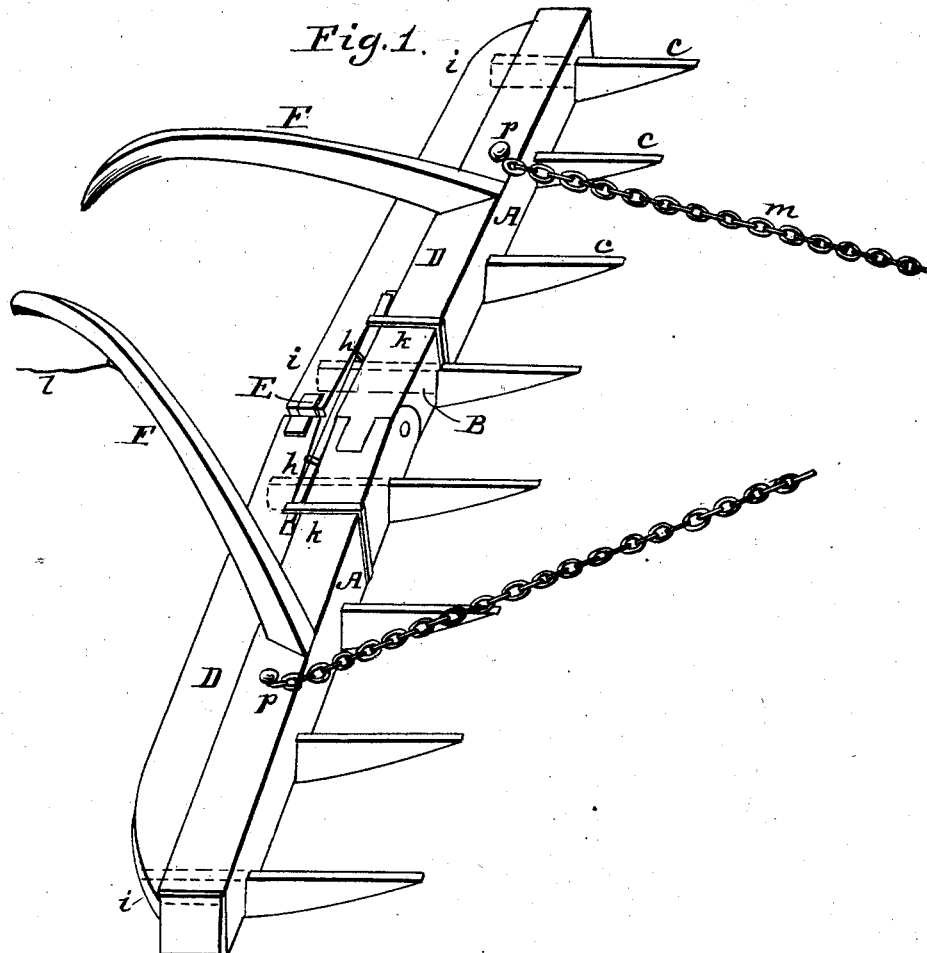
No. 838.

Patented July 12, 1838.

*Fig. 2.*



*Fig. 1.*



# UNITED STATES PATENT OFFICE.

WILLIAM BUCKMINSTER, OF FRAMINGHAM, MASSACHUSETTS.

## IMPROVEMENT IN FLEXIBLE HORSE HAY-RAKES.

Specification forming part of Letters Patent No. 838, dated July 12, 1838.

*To all whom it may concern:*

Be it known that I, WILLIAM BUCKMINSTER, of Framington, in the county of Middlesex and Commonwealth of Massachusetts, have invented and constructed a new and useful machine for raking hay with a horse, called the "Flexible Horse Hay-Rake," which is described as follows, reference being had to the annexed drawings.

My rake consists—

First. Of a head, A A, Figures 1 and 2, about ten feet long, with a joint, B, in the middle, which permits the head to bend up or down, so as to conform to the unevenness of the surface.

Second. A set of teeth, c c c, made out of flat slats and so pointed and sharpened as to turn up at the point, to glide the more easily over uneven ground. They rest on one edge and enter the head with a square shoulder, which supports them.

Third. A back board, D D, lying flat on the four long teeth that pass through the head and support the board.

My rake-head is made of a common-sized joist, A A. It is cut in two equal parts, and the two parts are then connected together by a common hinge, B, or by two staples, or by means of a common tenon and mortise and a pin to hold in the tenon. To strengthen this joint, a stay or brace three or four feet long is pinned onto the back part of the head by two pins at h h, each pin one foot and a half from the joint, so loose as to admit of the bending

of the head four or five degrees out of a right line. Two iron hoops or grips, k k, may be substituted for these two pins to hold the brace. They pass around the head and the brace. Four of the rake-teeth are made long enough to pass through the head ten or twelve inches, i i i i. These support the back board. The back board is half an inch thick, and as long as the head of the rake. It is nailed onto the long pins or teeth. It is from six to ten inches wide, and may be placed four inches from the back of the head. When thin, this board needs no joint in the middle. If made thick, it should be cut and then the ends attached together by leather hinges E and screws. Two handles, F F, like plow-handles, are fastened on the top of the head and of the back board. The rake is drawn by a horse, whose traces are attached to the staples p p or by the chains m m. A rope, l, is fastened to one handle, to cant the rake back again after it has been canted over forward to be emptied.

I claim as my invention—

The joint in the rake, and the back board, in combination, both as described above.

In testimony that the above is a true specification of my said invention as above described I have hereto set my hand this 15th day of February, A. D. 1838.

WM. BUCKMINSTER.

Witnesses:

EDGAR H. WHEELER,  
J. S. WHEELER.