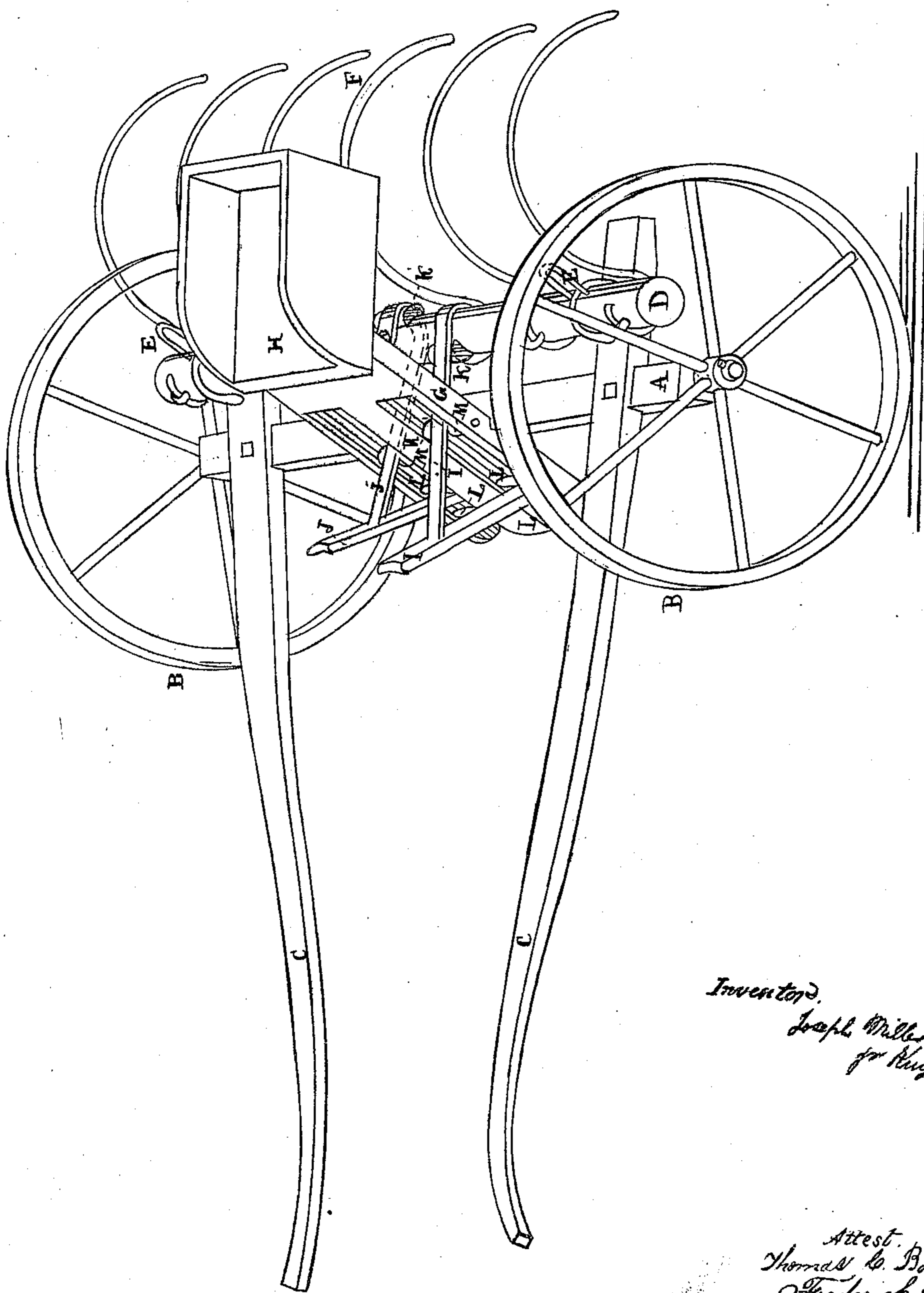


*J. Miller,
Horse Rake.*

No. 34441

Patented Feb. 18. 1862



*Inventor,
Joseph Miller
per Knight Bros & Co.*

*Attest.
Thomas B. Baird,
Frederick Seymour*

UNITED STATES PATENT OFFICE.

JOSEPH MILLER, OF PARIS, OHIO. .

IMPROVEMENT IN HORSE-RAKES.

Specification forming part of Letters Patent No. 34,441, dated February 18, 1862.

To all whom it may concern:

Be it known that I, JOSEPH MILLER, of Paris, Stark county, Ohio, have invented a new and useful Improvement in Horse-Rakes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawing, making part of this specification.

My invention relates to the class of horse-rakes which contain a partially-rotating rake-head supported upon a carriage and elevated or depressed at the option of the driver.

A is the axle-tree, B are the wheels, and C the thills, of a cart. The thills are prolonged back of the axle-tree, so as to form tongues C, which support the rake-head D. Lugs E, which project from the head D, serve to limit the descent of the teeth F. A standard, G, attached to the axle-tree, supports at its upper end a seat, H. Hinged to the standard G, near its lower end, are two treadles, I J, which, being connected by straps *ij* to opposite sides of the rake-head, act to vibrate said head either up or down as either treadle may be pressed upon.

In order to afford the operator the greatest power over the rake at its extreme elevated and depressed positions, and comparative velocity or promptness at all intermediate portions of its sweep, I form the head with protuberances K K', which, by giving the strap a greater purchase at these extreme points,

greatly reduce the fatigue of working the implement. Stops L, attached to the standard, limit the stroke of the treadle and prevent the unseating of the driver, arising from such casualties as the giving way of a strap, striking a stump, &c. The straps are supported by rollers M M', journaled upon the standard. A spur, N, attached beneath the strap *j*, by catching over the roller M' when the strap is drawn forward, enables the rake to be retained at its working position with very little effort on the part of the driver.

I claim herein as new and of my invention—

1. The arrangement of the protuberances K K', straps or chains *ij*, rollers M, spur N, and stops L, in connection with the foot-levers I J to facilitate the elevation, depression, and holding down of the rake, as hereinbefore explained.

2. The combination of the standard G, seat H, and vertical foot-levers I J, the levers being mounted upon the standard G, the latter secured to the axle A, and all arranged in the manner and for the purposes shown and explained.

In testimony of which invention I hereunto set my hand.

JOSEPH MILLER.

Witnesses:

JOHN STEEL,
NICOLAS SHARDET.