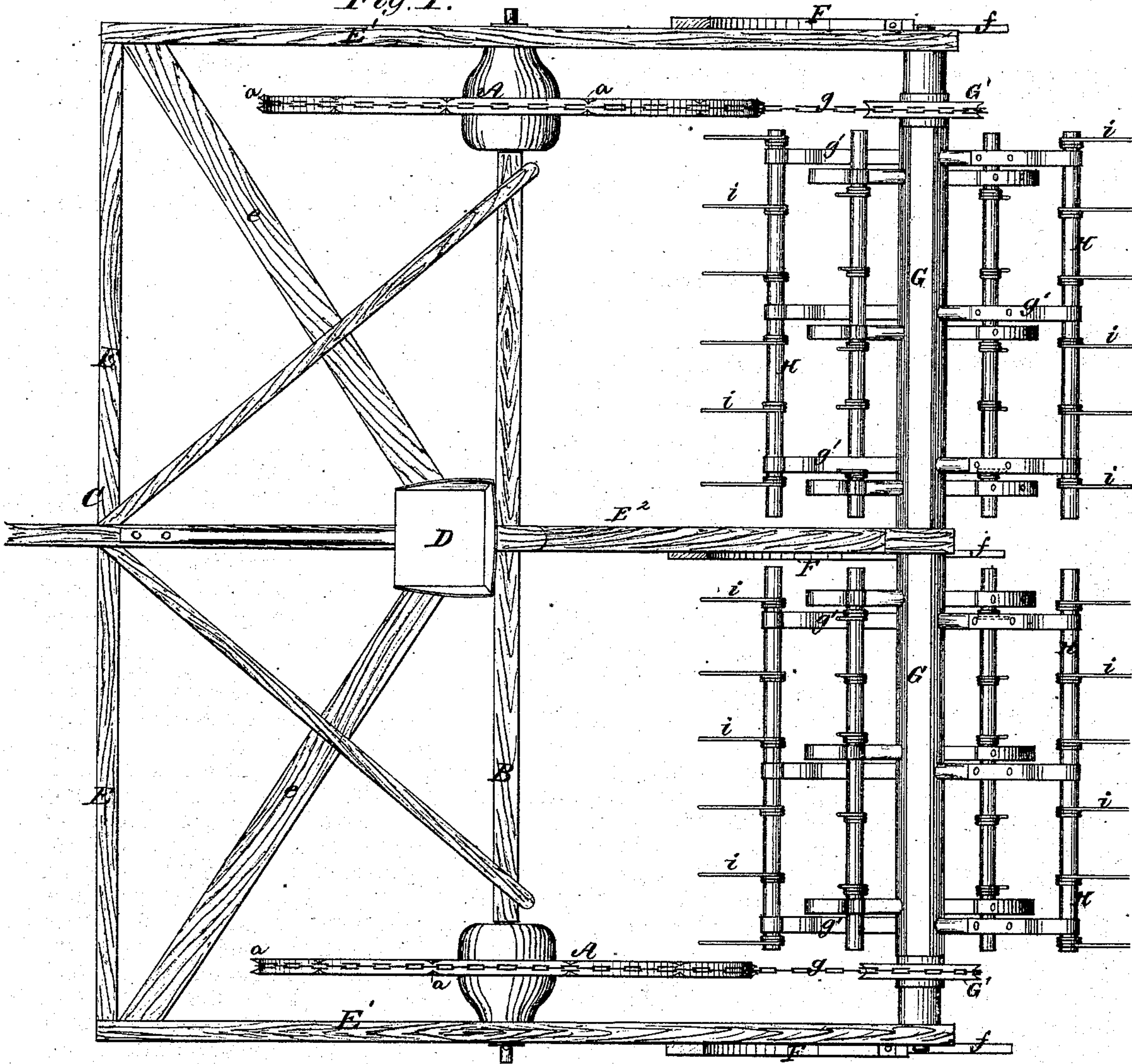


**H. MOORE.**  
**Hay-Tedders.**

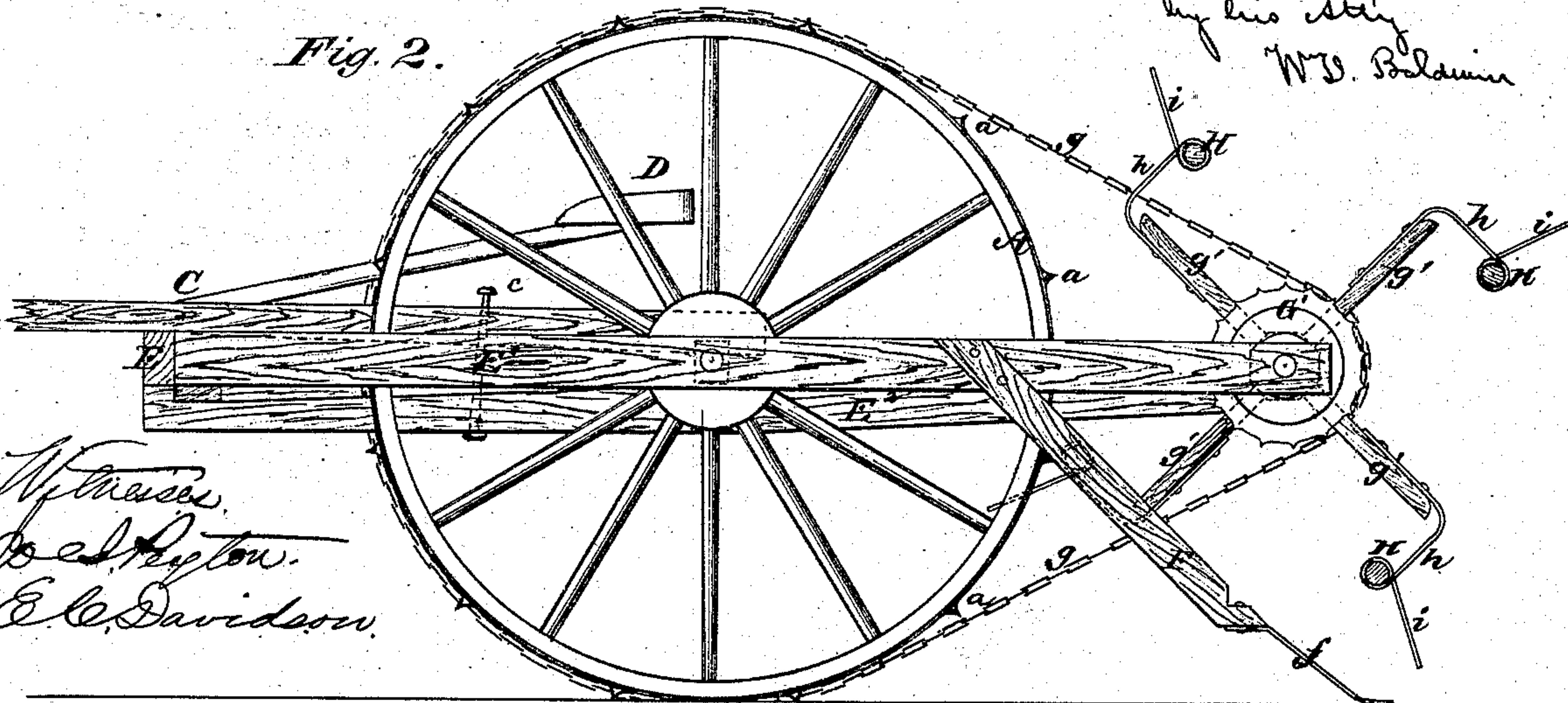
No. 158,180.

Patented Dec. 29, 1874.

*Fig. 1.*



*Fig. 2.*



Thrace Moore  
by his story  
Wm. Baldwin

W. H. Mason.  
J. A. Peyton.  
E. C. Davidson.



# UNITED STATES PATENT OFFICE

HIRAM MOORE, OF GREEN LAKE TOWNSHIP, GREEN LAKE COUNTY, WIS.

## IMPROVEMENT IN HAY-TEDDERS.

Specification forming part of Letters Patent No. **158,180**, dated December 29, 1874; application filed June 11, 1872.

*To all whom it may concern:*

Be it known that I, HIRAM MOORE, of the township and county of Green Lake, in the State of Wisconsin, have invented certain new and useful Improvements in Hay-Tedders, of which the following is a specification:

It is the object of my invention to provide a hay-tedder strongly and cheaply constructed, simple in operation, and thoroughly under the control of the operator when in use.

The subject-matter claimed is hereinafter specified.

In the accompanying drawings, which show a machine embodying all my improvements, Figure 1 is a plan, and Fig. 2 a side elevation.

Two wheels, A, turn freely on an axle, B, to which a tongue or draft-frame, C, is rigidly connected. A seat, D, for the driver, is mounted on the draft-frame. The tedder-frame is composed of a front cross-bar, E, uniting two parallel timbers, E<sup>1</sup>, rocking on the axle B, outside the wheels, and a central bar, E<sup>2</sup>, hinged underneath the axle. By this construction the width of the tedder-frame is increased without the use of angular side pieces. At the same time the driving mechanism is kept within the frame, whereby it is protected and the danger of accidents thereto diminished. This frame is strengthened in front by diagonal braces *e*, and rocks freely on the main axle independently of the draft-frame, within certain limits, being controlled in its range by a link, *c*, or other equivalent connection, between the two frames. Arms F, extending downward and backward from the tedder-frame, carry spring-runners *f*, which bear upon the ground and hold up the rear end of the frame to prevent the lifting of the tongue by the preponderance of weight behind the axle. Two independent spreader-shafts, G, are mounted in independent bearings in the

tedder-frame, so that each may revolve independently of the other. Each of these shafts is driven by a band, *g*, encircling one of the wheels A, which are provided for this purpose with sprockets *a* on their peripheries, and a sprocket-wheel, G', on the shaft. Radial arms *g'* on the shafts carry springs *h*, on which the rake-heads H are mounted, the springs coiling partly round the rake-heads. Spring-teeth *i* are coiled round the rake-heads in a direction the reverse of that of the connecting-springs *h*, to give full elasticity.

In operation the tedder-frame vibrates independently of the tongue. The rakes may be lifted by the driver pressing on the frame with his foot; or, by means of a lever, the spring-arms prevent the rakes from striking too deeply into the ground. The two rake-shafts being independent each of the other, and driven each by its own wheel, renders the machine easy to turn, and diminishes the work of each wheel. The rakes strike into the hay, yield slightly in moving backward, and then, in rising, give a slight jerk upward, which is very effectual in scattering and turning the hay. I thus secure a simple, light, cheap, and effective machine, easily constructed, handled, or repaired by any ordinary mechanic.

I claim as my invention—

The combination of the tedder-shaft, the connecting-springs, the rake-head, and the teeth coiled thereon, these members being constructed and operating substantially as hereinbefore set forth.

In testimony whereof I have hereunto subscribed my name.

HIRAM MOORE.

Witnesses:

JOE I. PEYTON,  
E. C. DAVIDSON.