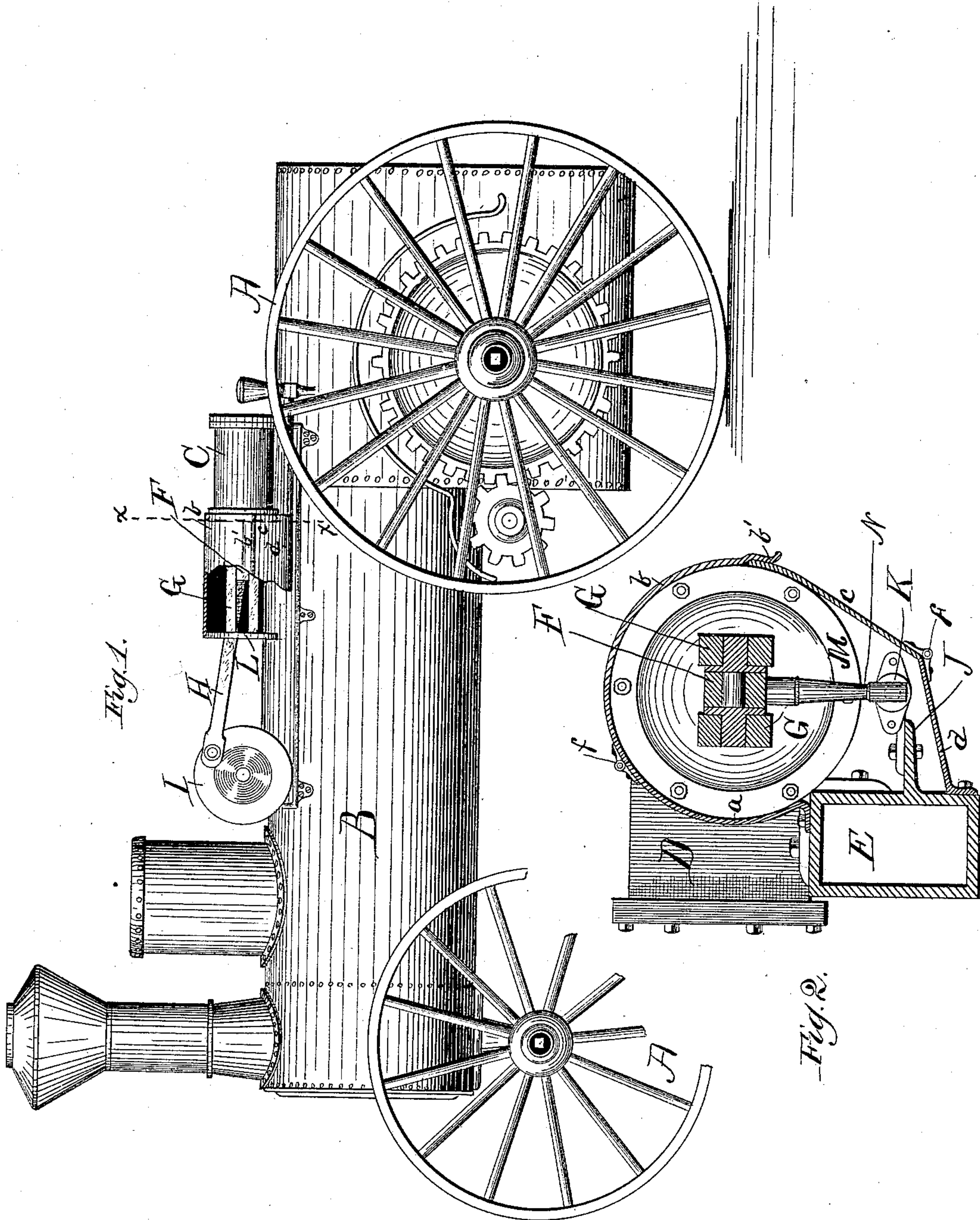


(No Model.)

M. RUMELY,  
PORTABLE AND TRACTION ENGINE.

No. 297,169.

Patented Apr. 22, 1884.



Witnesses:  
C. C. Gaylord.  
J. Everett Brown

Inventor:  
Meinrad Rumely  
per Munday, Evert & Adcock  
his Attorneys:



# UNITED STATES PATENT OFFICE.

MEINRAD RUMELY, OF LA PORTE, INDIANA.

## PORTABLE AND TRACTION ENGINE.

SPECIFICATION forming part of Letters Patent No. 297,169, dated April 22, 1884.

Application filed June 16, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, MEINRAD RUMELY, a citizen of the United States, residing in La Porte, in the county of La Porte and State of Indiana, have invented a new and useful Improvement in Portable and Traction Engines, of which the following is a specification.

My invention relates particularly to certain improvements in portable and traction engines used for running thrashing-machines, and for other agricultural purposes.

With steam-thrashers heretofore in use great difficulty has been experienced in their practical operation by reason of the constant cloud of dust and dirt from the thrasher, causing the slides, cross-head, and pump-plunger to quickly cut and wear out; and when the traction-engine is being moved from place to place on the dusty country roads the same difficulty is caused by the dust thrown up from the road by the traction and other wheels of the engine.

The object of the present invention is to overcome this difficulty; and it consists in arranging the pump-piston parallel and near to the slides, and providing a folding or hinged covering to inclose the slides, cross-head, and pump, and thus keep out the dirt and dust, while permitting ready access to said parts, the pump being driven by an arm from the cross-head.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a side elevation of a device embodying my invention; and Fig. 2 is a section on line *x x* of Fig. 1, enlarged.

In the drawings, A represents the wheels of the engine, B the boiler, C the cylinder, D the steam-chest, and E the heater.

F is the cross-head, and G G are the slides in which it reciprocates.

H is the connecting-rod from the cross-head to the crank-wheel I.

The pump is supported on a flange, J, projecting from the heater, and K represents the pump piston or plunger. The pump-piston, cross-head, and slides are all inclosed in a hinged covering consisting of four pieces of sheet-iron, *a*, *b*, *c*, and *d*, hinged together. The coverings *a* and *d* are secured rigidly to the heater by suitable screws or bolts, and the

coverings *b* and *c* are joined by suitable hinges, *f f*, to the covering-pieces *a* and *d*, respectively. The piece *b* is provided with a lip or flange, *b'*, to fit over the edge of the piece *c*, and thus form a close joint and lock the two pieces together.

L is the end piece of the covering. It is provided with a suitable vertical slot for the connecting-rod H.

The covering-pieces *a* and *b* are curved to fit the cylinder-head M.

Some of the advantages of my invention may be secured by making the hinged covering so that it incloses only the slides and cross-head; but I prefer to also inclose within the covering the pump-piston.

N is an arm extending from the cross-head to the pump-piston for the purpose of operating it.

I am aware of the Letters Patent No. 223,746, granted to J. Mathews January 20, 1880, which, in order to protect the driving-gear and working parts from dirt and grit, shows the same arranged outside the framing and wheels, and inclosed in a rigid or fixed casing, which is provided with doors for oiling the parts; and I hereby expressly disclaim said device, construction, and arrangement as forming no part of my invention. In my invention the steam-cylinder, its piston, cross-head, and slides, together with the pump-plunger, are arranged between the wheels and on top of the boiler, so as to elevate them from the ground and the dust arising therefrom, and so that the interposed boiler will afford protection; and, thus arranged, I inclose the same with a hinged covering, so that the whole covering may be thrown open or back and leave the parts completely exposed, so that they may be readily got at for purposes of oiling, cleaning, or renewal, the same as if no covering were employed. I thus, by means of my invention, afford a complete protection to the cross-head and slides and pump-plunger, and at little cost, and at the same time provide convenient access to the covered parts. In my invention, also, as the steam-cylinder, piston, cross-head, slides, and pump are all arranged on top of the boiler, no independent frame is required for their support.

What I claim is—

1. In a portable or traction steam-engine,

the combination, with the wheels and boiler supported thereon, of the steam-cylinder, its piston, cross-head, and slides, arranged between and above the wheels and supported on  
5 said boiler, and a hinged covering inclosing said cross-head and slides, adapted to open out to afford ready access to the same, substantially as specified.

2. In a portable or traction steam-engine,  
10 the combination, with the wheels A and boiler B, supported on the same, of steam-cylinder C,

steam-chest D, heater E, pump-plunger K, cross-head F, and slides G G, all arranged between and above said wheels and supported on said boiler, and coverings *a*, *b*, *c*, and *d*,  
15 hinged together and inclosing said cross-head, slides, and pump-plunger, substantially as specified.

MEINRAD RUMELY.

Witnesses:

ADOLPH MAYER,  
JOHN HANNA.