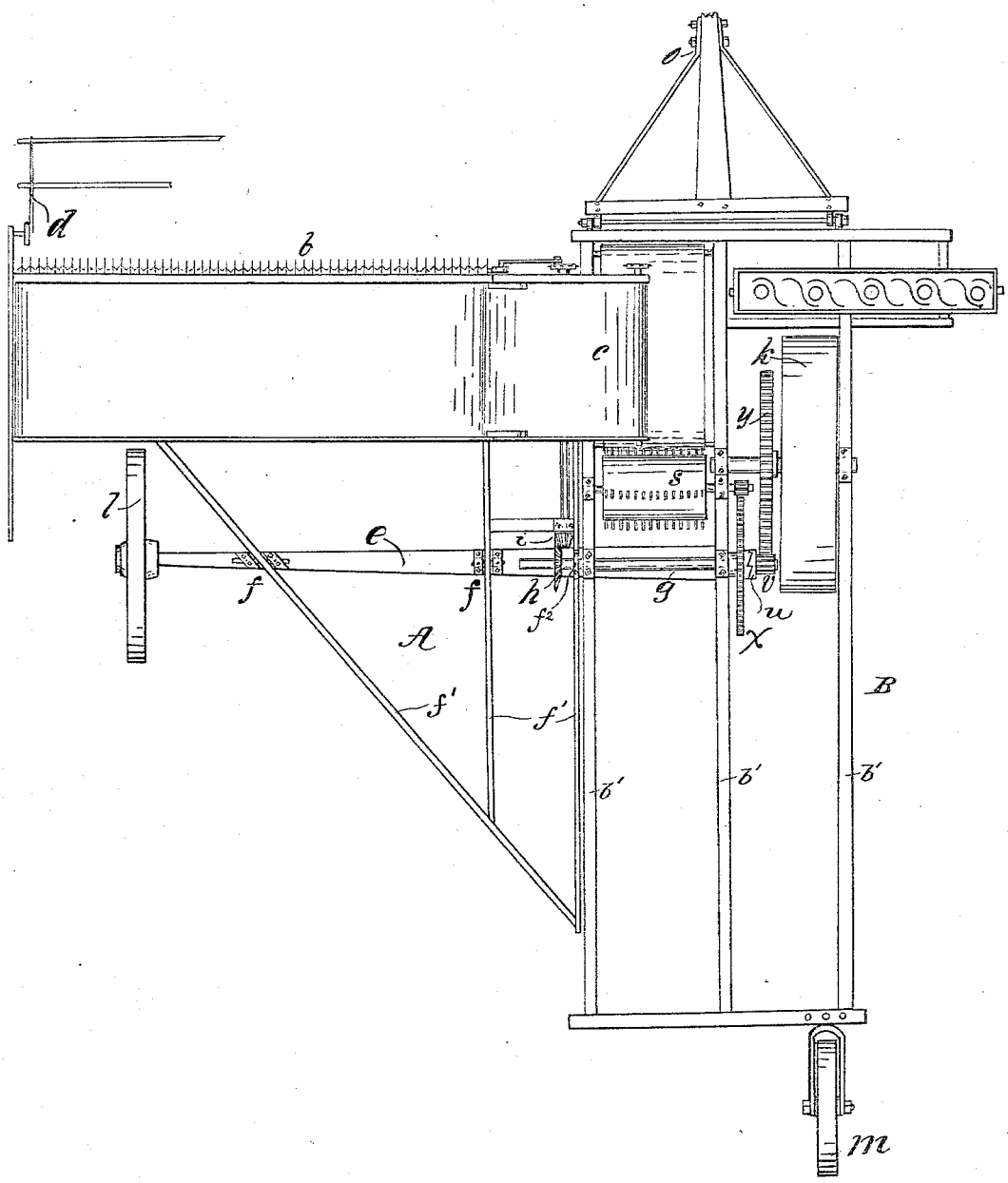
(No Model.)

# G. C. REYNOLDS & J. & W. PATERSON.

## COMBINED HEADER AND THRASHER.

No. 381,723. Patented Apr. 24, 1888.

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# UNITED STATES PATENT OFFICE.

GILBERT C. REYNOLDS, JAMES PATERSON, AND WILLIAM PATERSON, OF STOCKTON, CALIFORNIA.

## COMBINED HEADER AND THRASHER.

SPECIFICATION forming part of Letters Patent No. 381,723, dated April 24, 1888.

Application filed May 8, 1885. Serial No. 164,775. (No model.)

*To all whom it may concern:*

Be it known that we, GILBERT C. REYNOLDS, JAMES PATERSON, and WILLIAM PATERSON, citizens of the United States, residing at Stockton, county of San Joaquin, and State of California, have invented certain new and useful Improvements in Combined Harvesting-Machines in which cutting and thrashing are accomplished by a continuous process, of which the following is a specification.

The invention consists in an arrangement and construction of the framing and operative parts, reducing the number of the parts heretofore deemed necessary for such purpose, thus diminishing the cost of construction and the liability to and cost of repairs, and producing a more direct and positive application to the knife and draper of the power derived from the same shaft that drives the thrashing mechanism, thereby diminishing friction and increasing the certainty of action in a more perfect manner than has heretofore been attained. We attain these objects by the mechanism illustrated in the accompanying drawing, which is a plan of the whole machine.

B is the main frame, consisting of the longitudinal bars *b' b' b'*, properly connected together at their front and rear ends; and A the header-frame, carrying the knife and draper, consisting of the rearwardly-extending bars *f' f' f'*, properly connected, preferably in a triangular form, and united to the main frame by means of the header-axle *e* and the shaft *g*, to which it is pivoted.

*k* is the drive-wheel, supporting the main frame in conjunction with the wheels *l* and *m*.

*s* is the thrasher, actuated from the drive-wheel *k* by means of the gear-wheels *y*, *v*, and *x*, having a clutch, *u*, for throwing them out of gear.

The header A, having its knife *b*, draper *c*, and reel *d*, is pivoted on the axle *e* at *f f* and on the shaft *g* at $f^2$, in the manner hereinafter stated. The axle *e*, carrying at its outer end the header-wheel *l*, is rigidly attached to the main frame B, so as to bring the header-wheel as near abreast of the drive-wheel as the gearing between them will permit, and well toward the outer side of the header, so as to throw the weight of the machine, as far as practicable, upon the drive-wheel, and separating those wheels as widely as practicable to diminish the irregularity of movement over uneven ground.

The header-frame is pivoted upon the axle *e*, and upon the shaft *g* at *f f* and at $f^2$, in such manner as to give it the proper elevation and upward and downward play, the axes of the pivots being in the same straight line with the axis of the shaft *g*, mounted on the main frame B, having the bevel-pinion *h* engaging with the bevel-pinion *i*, which actuates the knife *b*, draper *c*, and reel *d*, the radius being the same whether the header is elevated or depressed. The shaft *g* is connected with the drive-wheel *k* by means of the gearing *y v*, and with the pinion on the thrasher-shaft by means of the spur-wheel *x*.

The rear of the machine is supported by the swivel-wheel *m*, which is so placed as to properly support the rear end of the frame.

*o* is the tongue.

We do not claim the header or thrasher separate or combined, nor the use of a drive-wheel, header-wheel, or swivel-wheel; but

What we do claim as our invention, and desire to secure by Letters Patent of the United States, is—

1. In a heading-machine, the combination of the main frame B, the shaft *g*, mounted transversely therein, the drive-wheel *k*, and the axle *e*, projecting from the main frame, and the header-frame pivoted on the shaft *g*, and the axle *e*, the pivots on the axle being in line with the axis of the shaft *g*, the knife *b*, and the draper *c*, constructed and operating substantially as herein described.

2. In a combined header and thrasher, the combination of the main frame, the shaft *g*, mounted transversely therein, the drive-wheel *k*, and the axle *e*, projecting from the main frame, the pivots on said axle being in line with the axis of the shaft *g*, and the header-frame pivoted on the shaft *g*, the knife *b*, the draper *c*, and the thrasher *s*, substantially as herein described.

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