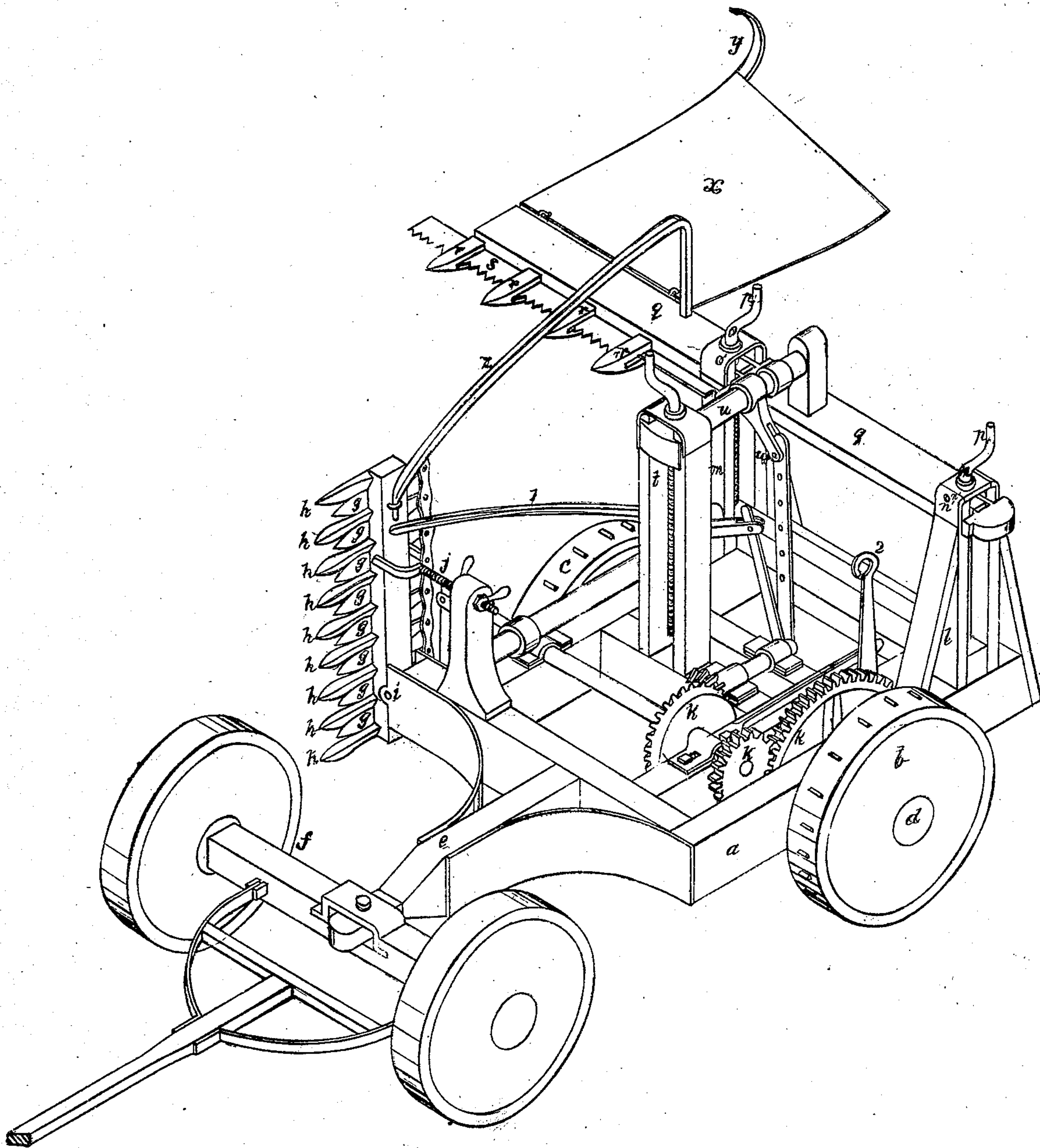


W. Wimmer,
Hedge Trimmer.
No. 17764 *Patented July 7, 1857.*



UNITED STATES PATENT OFFICE.

WILLIAM WIMMER, OF BILLINGSVILLE, INDIANA.

IMPROVEMENT IN MACHINES FOR TRIMMING HEDGES.

Specification forming part of Letters Patent No. 17,764, dated July 7, 1857.

To all whom it may concern:

Be it known that I, WILLIAM WIMMER, of Billingsville, Union county, Indiana, have invented new and useful Improvements in Machines for Trimming Hedges; 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.

The object of my invention is the simultaneous trimming of one side and the top of a hedge to any height, breadth, or form.

In the accompanying drawing the machine is represented by a perspective view.

a is the bed of a truck whose two main wheels, *b c*, are fast to the axle *d*. The perch *e* is supported on a common wagon foregear, *f*.

g h is a set of vibrating shears, which being near its lower end hinged, *i*, to the front right-hand corner of the frame, its upper end is supported at any desired angle by the extensible brace *j*. This set of shears consists of a series of vibrating blades, *g*, and stationary fingers *h*, whose form and construction, being similar to those of many reaping-machines, need no specific description. These blades are actuated from gearing *k*, deriving motion from the main axle, the motion being communicated through suitable levers, shafts, and rods, as represented.

l m are two stanchions extending upward from the two rear corners of the truck-body. Through their upper portions are inserted two rods, *n o*, which, being suitably confined by collars *n' o'*, are made capable of a rotary motion around their respective axes, and also (by any approved mechanical arrangements) of a slight vibratory motion transversely with respect to the machine. These rods, at their upper portions, have crank-handles *p*. Their lower portions are screw-threaded, so as by their rotation to elevate or depress a movable rail, *q*, which projects some distance to the right hand of the machine, and bears upon its front edge a set of fingers, *r*, slotted to receive the serrated blade *S*, which blade has a longitudinal vibration given to it by means of suitable connections, as represented, with the motive gearing. *t* is a similar arrangement of screw and stanchion, by which one end of the rocker-shaft *u* is lowered or raised simultaneously with the rail *q*.

The rod *v* is perforated, as represented, to admit of shifting the pin *w* as the rail is changed in elevation.

x is an apron which, being hung over hooks by its front edge, as represented, extends backward, (resting on the top of the hedge when in operation,) and is sufficiently depressed toward its left rear corner to be enabled thereby to discharge behind the machine the clippings made by the serrated knife. *y* is a hook which separates those portions of the clippings that have become entangled in the hedge top. The bar *z* serves the purpose of pressing toward and subjecting to the action of the serrated blade the boughs which have escaped the action of the side shears. This bar serves also as a brace to both the side shears and to the falling rail *q*. *1* is another brace to the front shears, its ends being so attached to the frame and shear-stock, respectively, as to permit the necessary angular adjustment of the shears.

In practice I have found it desirable to move the top shears about four times as fast as the side ones.

A provision may be employed for the disconnection, when desired, of the driving and operating parts.

The operation is as follows: The top shears being set at the desired height and slope for the top of the hedge, and the side shears at the slope desired for the side of the hedge, and the machine being brought into proper position with respect to the hedge, and being drawn forward parallel with the hedge, then the side shears, being in advance, will first trim the side to the desired slope, and afterward the top shears will trim the top a little beyond its mid-line, the remainder of the top-clipping being performed when the machine returns along the other side. The top-clippings, falling onto the apron, are discharged to one side, as before stated.

What I claim as new and as my invention herein is—

The duplex arrangement of shears, substantially as described, both sets being actuated from the same driving-wheel, and being adapted to trim simultaneously the top and one side of the hedge to any desired uniform height and pitch.

In testimony of which invention I hereunto set my hand.

WM. WIMMER.

Witnesses:

GEO. H. KNIGHT,
BAS. H. GRIDLEY.