

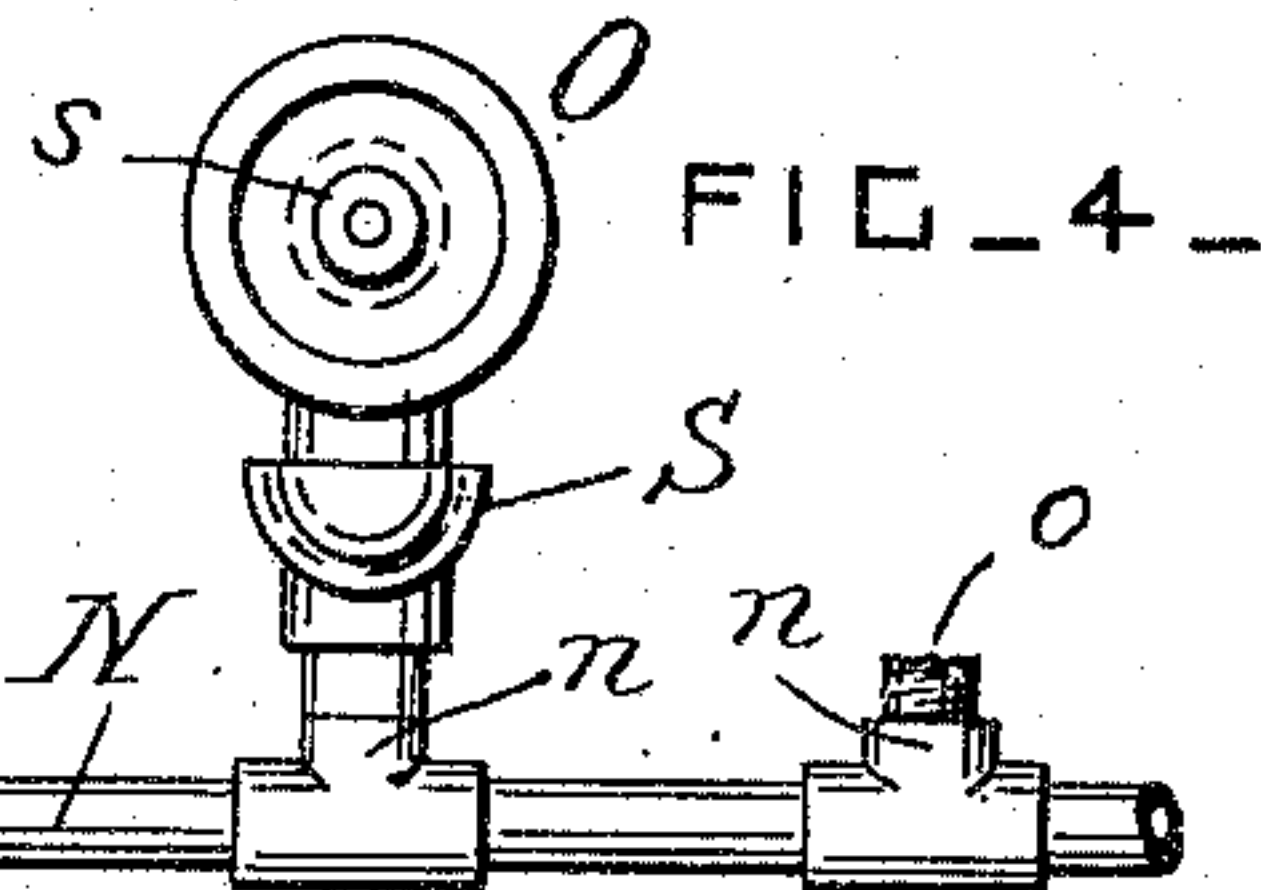
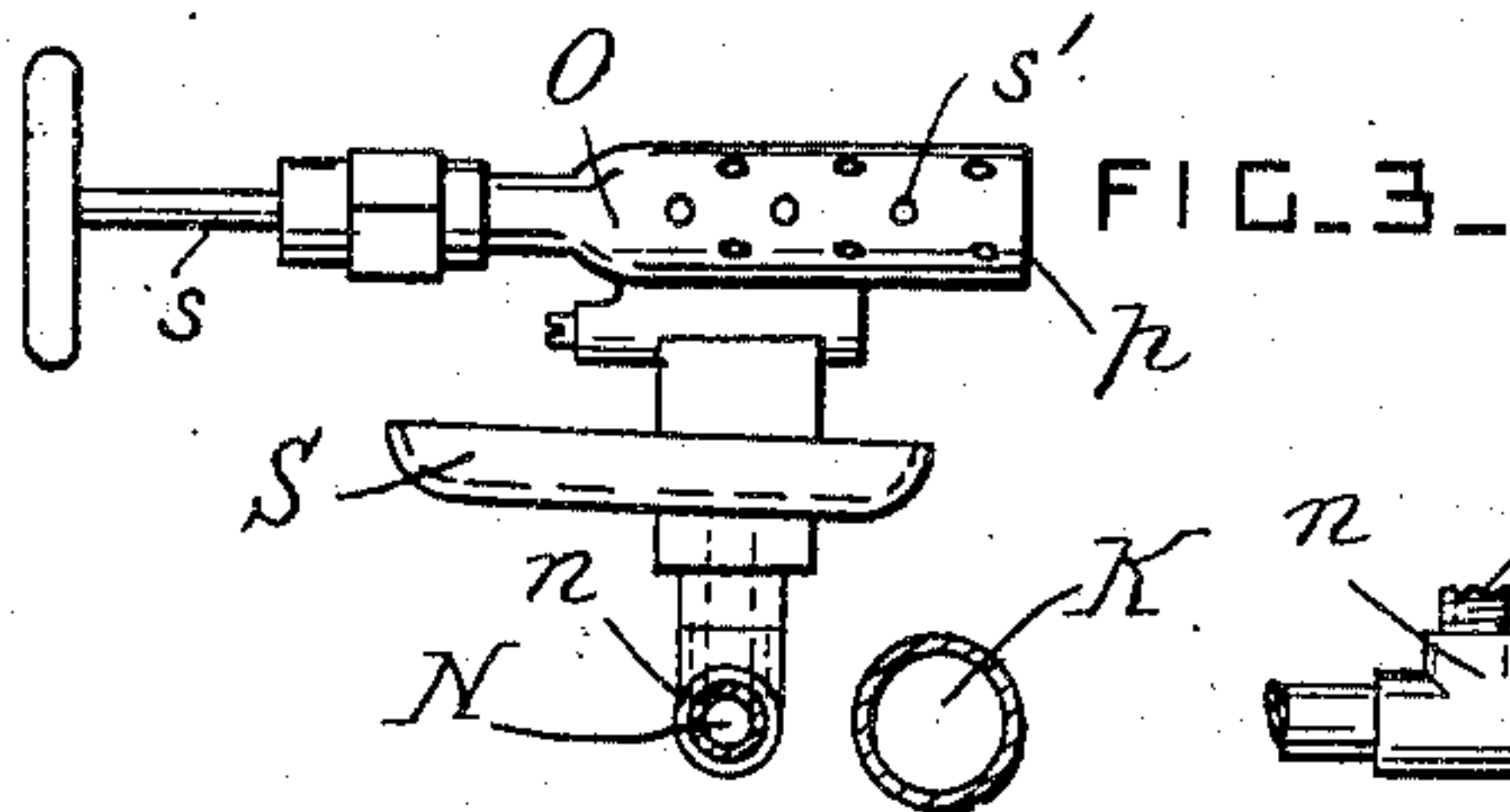
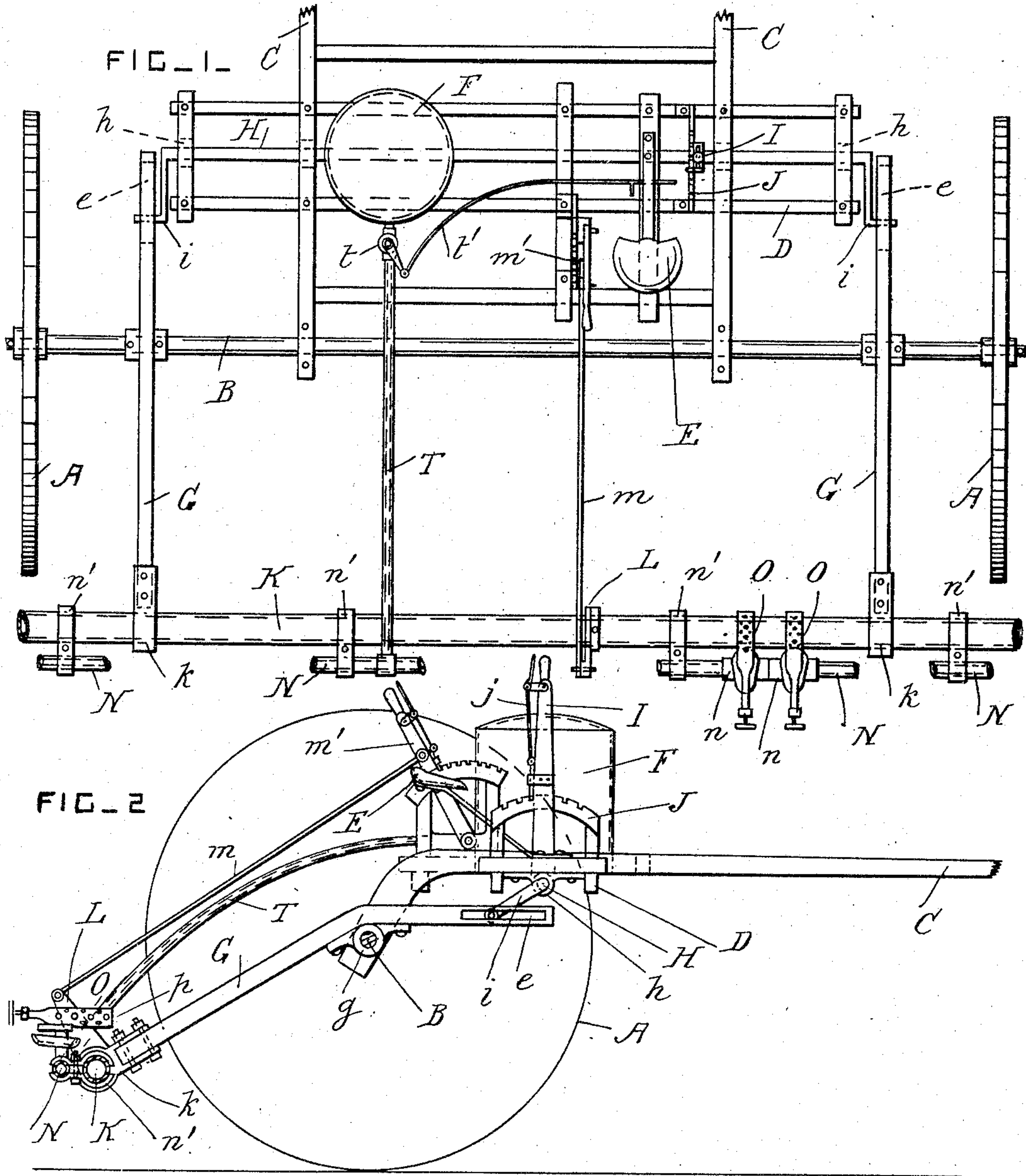
P. G. DAVIDSON.

WEED BURNER.

APPLICATION FILED MAR. 30, 1909.

947,297.

Patented Jan. 25, 1910.



Witnesses

L. B. Middleton  
E. H. Bond

By

Peter G. Davidson,  
Herbert W. Jenner.

Inventor

Attorney



# UNITED STATES PATENT OFFICE.

PETER GODTFRED DAVIDSON, OF VALLEY CITY, NORTH DAKOTA, ASSIGNOR OF ONE-HALF TO HANS C. STENSHOEL, OF VALLEY CITY, NORTH DAKOTA.

## WEED-BURNER.

947,297.

Specification of Letters Patent. Patented Jan. 25, 1910.

Application filed March 30, 1909. Serial No. 486,747.

*To all whom it may concern:*

Be it known that I, PETER G. DAVIDSON, a citizen of the United States, residing at Valley City, in the county of Barnes and State of North Dakota, have invented certain new and useful Improvements in Weed-Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to burning devices for destroying weeds, such as wild oats, on farm land; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of the weed destroyer with portions of the burner supports broken away and certain of the burners omitted. Fig. 2 is a side view with one of the ground wheels removed. Fig. 3 is a detail side view of one of the burners, drawn to a larger scale. Fig. 4 is an end view of the burner.

A are the ground wheels mounted on an axle B, and C are the shafts or draft attachments which are connected to the said axle.

D is a framework of bars secured to the axle and shafts.

E is a seat for the driver supported from the framework in any convenient position; and F is a tank for gasolene also supported by the framework.

G are arms having their end portions arranged at an obtuse angle with each other, and provided at their middle parts with bearings *g* which are journaled on the axle B. The front end portions of the arms have slots *e*, and are arranged substantially horizontal, and the rear end portions of the arms are inclined downwardly.

H is a crank-shaft journaled in bearings *h* on the framework D, and provided with cranks *i* at its ends, the crank-pins of which engage with the slots *e*, and afford a means for varying the inclination of the rear end portions of the arms G.

I is a lever secured to the shaft H near the driver's seat, and provided with a catch *j* for engaging with a notched quadrant-plate J secured to the framework.

K is a tubular support journaled in bearings *k* secured to the rear ends of the arms G.

L is a lever secured on the support K, and *m* is a rod pivoted to the lever L, and pro-

vided with any approved catch mechanism *m'* at its other end, which is arranged adjacent to the driver's seat. This catch mechanism may be similar to the catch *j* and quadrant-plate J, if desired.

N is the burner pipe which is formed of a series of short pipe sections coupled together by T-pipes *n*. The pipe N is secured to the tubular support by clamps *n'*. The pipes K and N are made of any desired length, and portions only of them are shown.

O are the burners which are connected by short branch pipes *o* to the T-pipes *n*. These burners are all alike, and as many as desired are used, and they are arranged at any desired distances apart.

The burner pipe N is arranged to the rear of the tubular support, and can be clamped to it in any desired position. The burners are arranged a little above the tubular support, so that their nozzles *p* whence the flame issues project forwardly over the tubular support, and are directed more or less downward by turning the tubular support on its axis. The height of the burners above the ground is varied by means of the lever I and arms G. These adjustments can be made as the machine is being drawn along.

Each burner has a regulating valve *s* at its rear, and has holes *s'* in its periphery for the admission of air to mix with the gas which is ignited as it issues from the nozzle. A cup S is arranged under each burner. This cup is filled with gasolene which is ignited to heat the burner and vaporize the gasolene in it before the machine is started.

T is a flexible pipe which connects the tank F with the burner pipe. This pipe may be of india rubber, or it may be a metallic pipe suitably jointed. The pipe T is provided with a valve *t* of any approved construction, and the rod *t'* for working the valve is arranged with its handle portion in convenient proximity to the driver's seat.

The gasolene tank is preferably provided with a small air-pump and a pressure-gage of approved construction, and the gasolene is forced into the burner pipe by the pressure of the air previously forced into the gasolene tank by the air-pump.

The machine is drawn through or over the weeds, and the flames from the burners are caused to impinge on the weeds, so that they are destroyed in an effectual manner.



What I claim is:

1. In a weed burner, the combination, with  
a frame provided with an axle and ground  
wheels mounted thereon, and a draft-attach-  
5 ment arranged at the front end of the frame;  
of arms pivoted on the said axle, means for  
adjusting the said arms with respect to the  
ground, a horizontal support journaled in  
bearings on the said arms and arranged to  
10 the rear of the said ground wheels, a fuel  
supply pipe secured to the said support,  
burners secured to the said pipe with their  
flame nozzles projecting forwardly, and  
means for turning the said support on its  
15 axis to adjust the direction of the flames.

2. In a weed burner, the combination, with  
an axle, and ground wheels mounted there-  
on, of a frame carried by the said axle, arms  
pivoted on the said axle and provided with

slots in their front end portions, a crank- 20  
shaft journaled in the said frame and pro-  
vided with cranks which engage with the  
said slots, a lever for operating the said  
crank-shaft, a support journaled in bearings  
at the rear ends of the said arms, adjusting 25  
devices for turning the said support in its  
bearings, a burner pipe clamped on the rear  
side of the said support, burners secured to  
the burner pipe with their flame nozzles  
projecting over the said support, and means 30  
for supplying gasolene to the said burner  
pipe.

In testimony whereof I have affixed my  
signature in the presence of two witnesses.

PETER GODTFRED DAVIDSON.

Witnesses:

WALTER COOP,  
GEO. FITZGERALD.