J. R. MILLER.

FIRE GUARD MACHINE.

APPLICATION FILED DEC. 5, 1916. RENEWED MAY 31, 1919.

1,316,496. Patented Sept. 16, 1919.

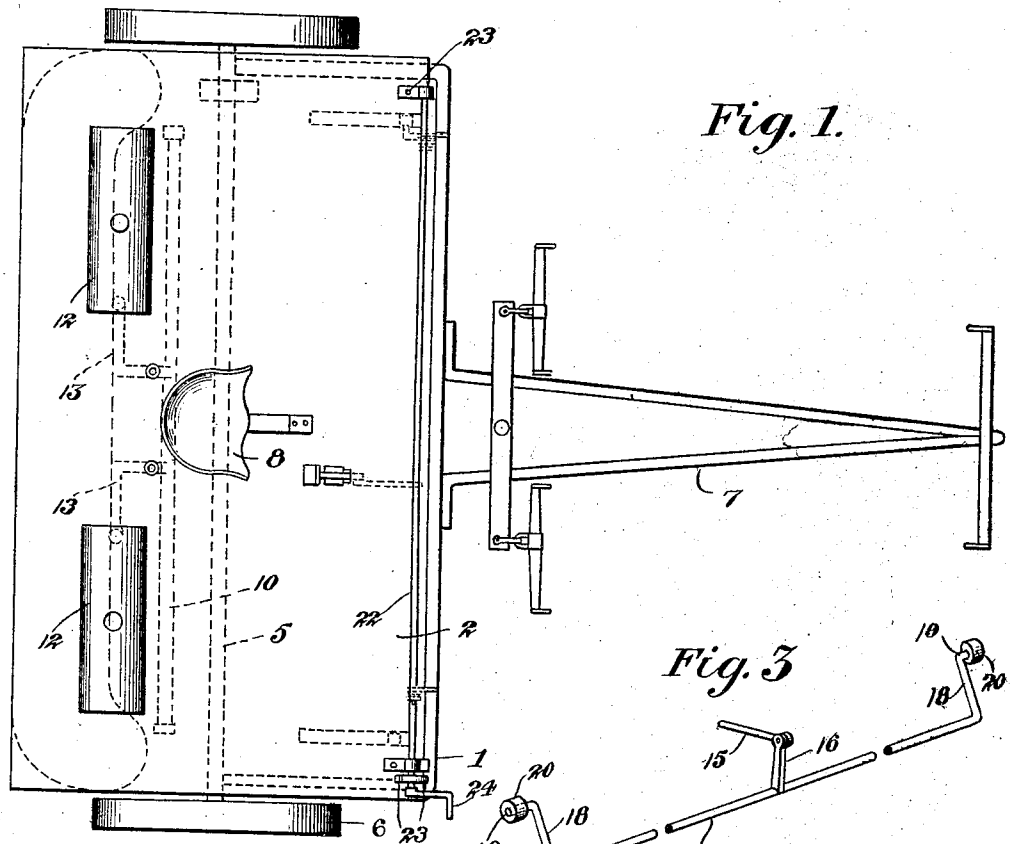


Fig. 1.

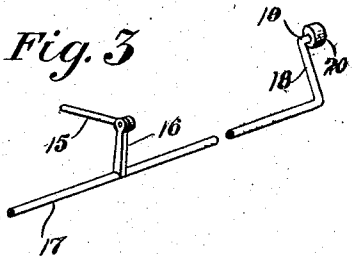


Fig. 3

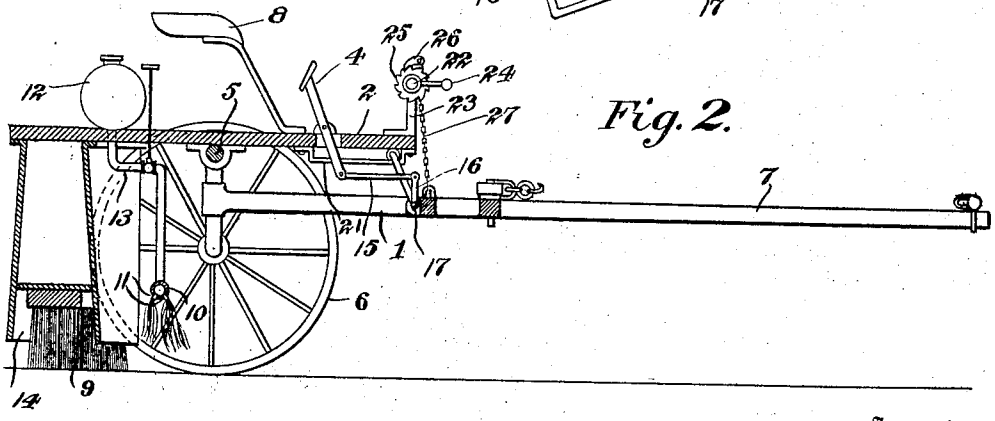


Fig. 2.

Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN R. MILLER, OF HARLEM, MONTANA.

## FIRE-GUARD MACHINE.

1,316,496. Specification of Letters Patent. Patented Sept. 16, 1919.

Application filed December 5, 1916, Serial No. 135,204. Renewed May 31, 1919. Serial No. 301,125.

*To all whom it may concern:*

Be it known that I, JOHN R. MILLER, a citizen of the United States, residing at Harlem, in the county of Blaine and State of Montana, have invented new and useful Improvements in Fire-Guard Machines, of which the following is a specification.

This invention is an improved machine for preventing prairie fires by burning the grass to form lanes at suitable distances apart and across and around the protected area, the object of the invention being to provide an improved machine of this kind which is cheap and simple in construction and which can be readily operated.

The invention consists in the features of construction, combination, and arrangement of devices, hereinafter fully described and claimed.

In the accompanying drawings:

Figure 1 is a plan of a fire preventing machine constructed and arranged in accordance with my invention.

Fig. 2 is a side elevation of the same partly in section.

Fig. 3 is a detailed perspective view of the rock shaft and its connections.

The frame of my improved fire preventing machine comprises a main lower portion 1 and an upper portion 2 which is mounted for pivotal movement and which may be secured either in horizontal, or in dumping position by means of a lever 4. The machine frame member is rigidly mounted on an axle 5 which is provided with ground wheels 6. The tongue 7 is also connected to the machine frame and a seat 8 is provided for the driver.

Brushes 9, which in practice are preferably made of steel, are connected to the upper frame member, at the rear side and are adapted to press closely on the ground, when the machine is in motion. A burner pipe 10 is spaced a suitable distance in front of the brushes and also extends transversely under the machine, is provided with suitable burners 11, and is supplied with gasolene or other suitable liquid hydrocarbon from tanks 12 by means of suitable pipes 13. A hood 14 which may be made of any suitable sheet metal is arranged as a protector between the burners and the brushes and serves otherwise to keep sparks thereunder and prevent the sparks from flying.

When in use, the burners destroy the grass as the machine passes over it, the brushes extinguish the fire behind the brushes and prevent it from spreading and the hood also assists in preventing the spreading of the fire by catching and holding the sparks arising from the burning lanes of grass.

The lever 4 is connected by a rod 15 to the arm 16 of a rock shaft 17 which is mounted in bearings at the front side of the lower frame portion and said rock shaft has arms 18 at its ends provided with outwardly projecting spindles 19, on which rollers 20 are revolubly mounted. Said rollers operate in guides 21 on the lower side of the upper frame member or portion.

To lock the frame members in adjusted position, to hold the brushes at any desired adjustment vertically, I also provide a winch shaft 22 which is mounted in bearings on standards 23 on the upper frame member. Said winch shaft has a crank handle 24 at one end and also has a ratchet wheel 25 which may be engaged by a detent pawl 26. A chain 27 is attached to the lower frame member 1 and is also connected to the winch shaft.

Having described the invention, what is claimed is:

A fire preventing machine of the class described, comprising a frame member having an axle, supporting wheels and a tongue, a second frame member pivotally mounted on the axle of the first-named frame member for vertical angular movement, brushes, burners, fuel supply tanks for the burners carried by the second-named frame member and arranged at the rear side thereof and means to adjust said second-named frame member pivotally to raise or lower the brushes and burners.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN R. MILLER.

Witnesses:
M. T. LARSON,
ARTHUR F. WAGNER.