

(No Model.)

E. C. MILLS.

MACHINE FOR MARKING COURTS OR LINES FOR LAWN TENNIS.

No. 365,532.

Patented June 28, 1887.

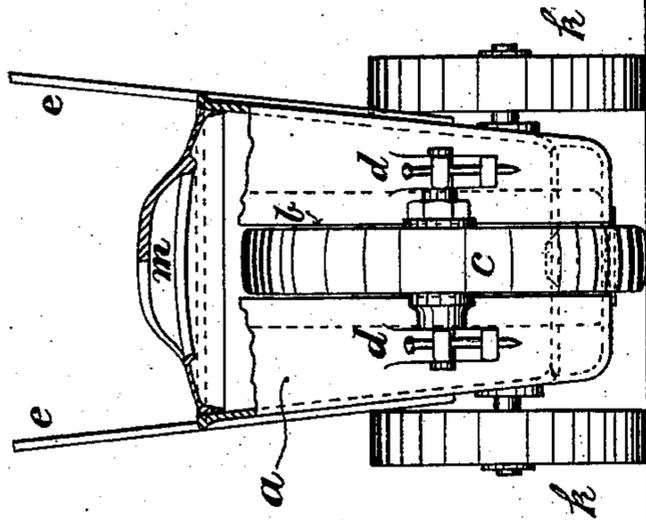


Fig. II

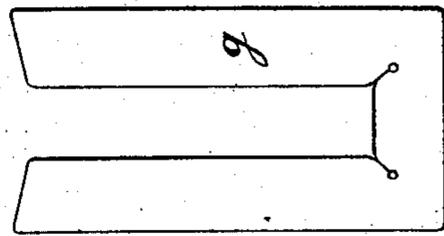


Fig. III

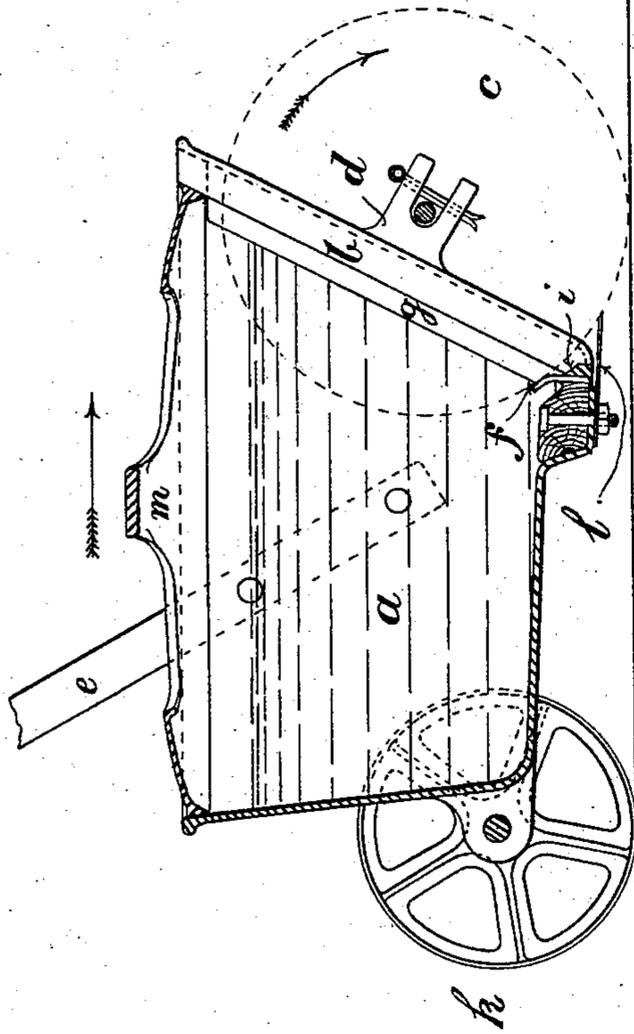


Fig. I

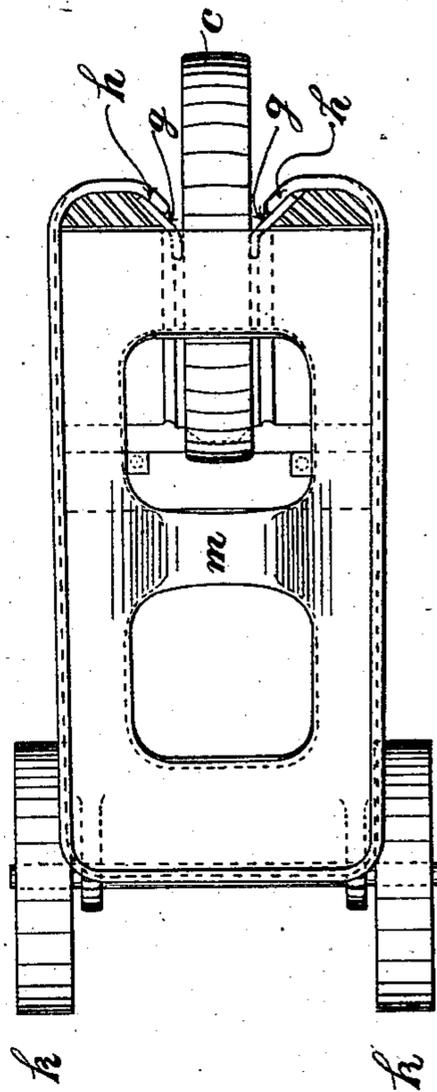


Fig. III

Witnesses:  
L. S. Rohrer  
Paul A. Draper.

Inventor:  
Edgar Coniston Mills  
By his Atty's, Harding & Tichenor

# UNITED STATES PATENT OFFICE.

EDGAR CONISTON MILLS, OF MANCHESTER, COUNTY OF LANCASTER,  
ENGLAND.

## MACHINE FOR MARKING COURTS OR LINES FOR LAWN-TENNIS.

SPECIFICATION forming part of Letters Patent No. 365,532, dated June 28, 1887.

Application filed March 10, 1887. Serial No. 230,449. (No model.) Patented in England June 4, 1885, No. 6,790.

*To all whom it may concern:*

Be it known that I, EDGAR CONISTON MILLS, a subject of the Queen of England, residing at Manchester, in the county of Lancaster, Eng-  
5 land, mechanical engineer, have invented certain new and useful Improvements in Machines for Marking Courts or Lines for Lawn-Tennis or other Purposes, of which the following is a specification.

10 In the front wall of a box or cistern which contains the fluid or mixture used for marking I form a slot slightly wider than the desired width of the line. A wheel with smooth  
15 flat unbroken sides, made of wood or a suitable hard composition or of rustless metal, is mounted in bearings outside but near to the slotted front wall of the box, and a considerable portion of the wheel projects into the box  
20 through the slot. The wheel runs on the ground, and is of such a size that the bottom of the box is kept off the ground, while the top of the wheel is a little above the level of the fluid in the box when it is as full as is required.

On the accompanying sheet of drawings, Fig.  
25 I is a sectional elevation of the machine. Fig. II is an end elevation, partly in section. Fig. III is a plan. Fig. IV shows the form in which the rubber sheet is cut, as will hereinafter be described.

30 In all the views similar letters of reference refer to the same parts.

*a* is the tank or cistern, with an opening or slot, *b*, in its front wall.

35 The wheel or disk *c* is mounted in bearings *d* outside the box. The level of the fluid in the tank, when as full as is required, is indicated by the dotted lines, as is also the direction of motion of the tank and wheel by arrows.

40 *e e* are the handles by which the machine is manipulated.

In order to make good the joints up the two sides of the wheel *c* and at the point of its periphery where it enters the tank at *f*, and  
45 also in order to remove or scrape the fluid from the upper portion of the two sides of the wheel, where in revolving it moves outward, I use a U-shaped piece of rubber, insertion, or other suitable flexible and elastic material.  
50 This is shown at *g* in Figs. I, III; and Fig. IV

shows it as cut from the sheet and before being applied to the machine. It is mounted upon inclined pieces *h*, along the inside edges of the slot *b*, and a corresponding piece, *i*, on the under side. It is thus held, as shown in the  
55 drawings, with its inner edges resting against the sides and lower periphery of the wheel in a slanting direction toward the inside of the tank. The pressure of the fluid therein tends to press the material *g* against the wheel. 60

Two other small wheels, *k*, are used to carry the hinder part of the tank, and when it is required to move the machine without marking it is tilted back and run entirely on these  
65 wheels. To prevent soil, grass, or other dirt from getting into the machine, I provide a small scraper, *l*, fixed between the point of contact of the wheel with the ground and the point where it re-enters the tank.

An iron cover, *m*, or any other suitable cover 70 may be used; but such cover forms no part of my present invention.

The action will be readily understood. The machine being propelled forward in the direction of the straight arrow the front wheel re-  
75 volves, as shown by its arrow. All the fluid adhering to the periphery of the wheel is carried forward out of the tank and deposited at once on the ground, while no leakage at any other point can take place by reason of the  
80 preventive action of the rubber *g*.

I claim—

1. The combination, with the tank of a lawn-  
marker, said tank containing the marking sub-  
stance, and a marking-wheel projecting into  
85 said tank, of an elastic scraper secured to the tank and bearing on said wheel along the line of entrance, whereby leakage of the marking substance is avoided, substantially as and for  
90 the purpose specified.

2. The combination, with the tank of a lawn-  
marker having a portion of its forward end cut  
away to admit the marking-wheel, and a U-  
shaped elastic scraper secured to the tank, said  
scraper bearing on all faces of the wheel below  
95 the surface of the marking substance, of a marking-wheel extending into said tank and engaging said scraper, substantially as described.

3. In a lawn-marker, the combination of the  
tank having the marking substance contained 100

therein, and a marking-wheel revolving partially within the tank, the segment of said wheel within the tank extending through the marking substance to a point above its upper  
5 surface, substantially as described.

4. In a lawn-marker, a tank having a liquid marking substance contained therein, and a marking-wheel entering said tank below the level of its contained fluid through a flexible  
10 fluid-tight opening, substantially as described.

In testimony whereof I have hereto set my hand in the presence of two subscribing witnesses.

EDGAR CONISTON MILLS.

Witnesses:

WILLIAM SPARY,  
CHARLES SHAW.