(No Model.)

W. Y. OBER.

PAVING MACHINE.

No. 544,746. Patented Aug. 20, 1895.

Fig. 1.

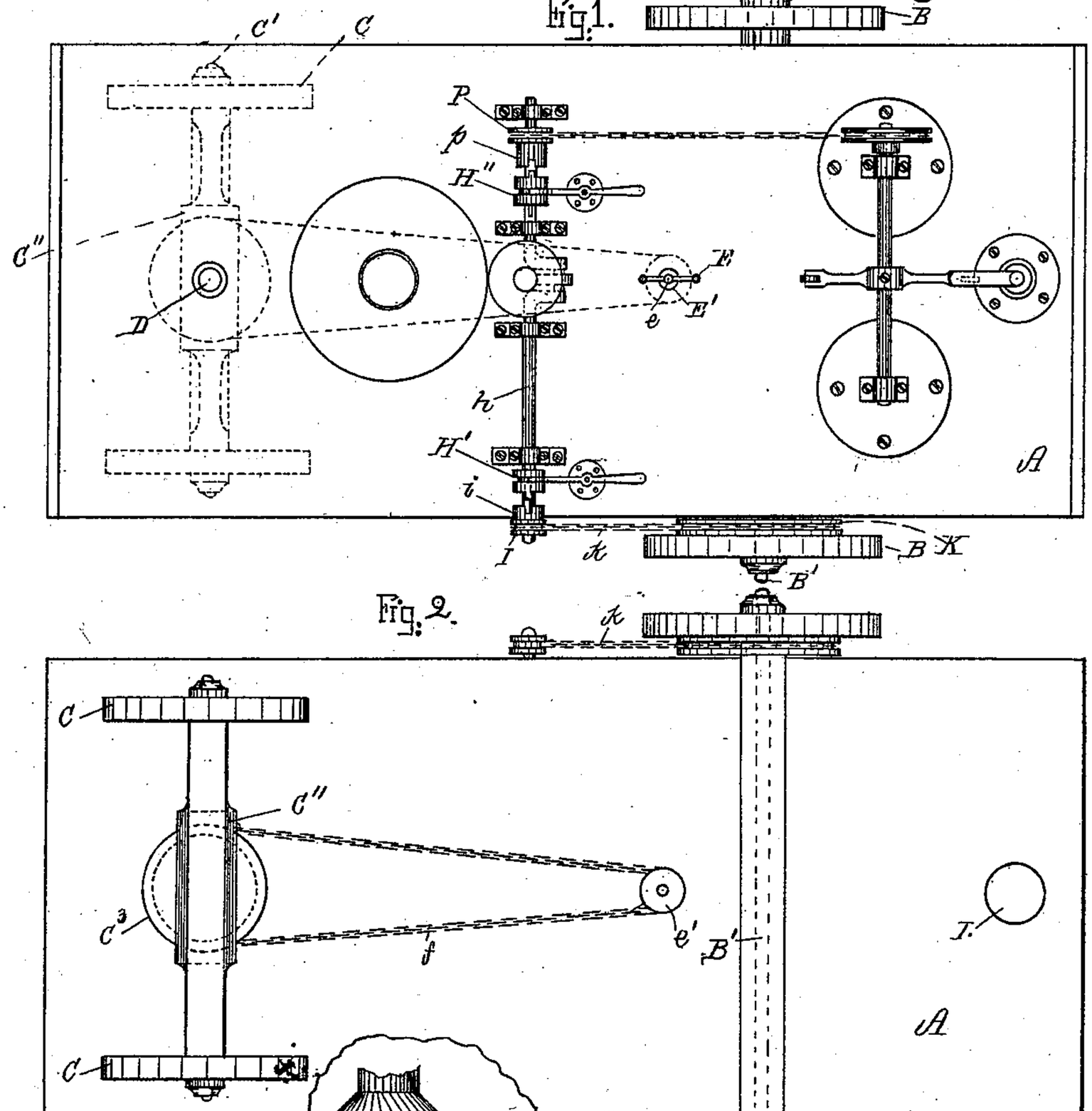
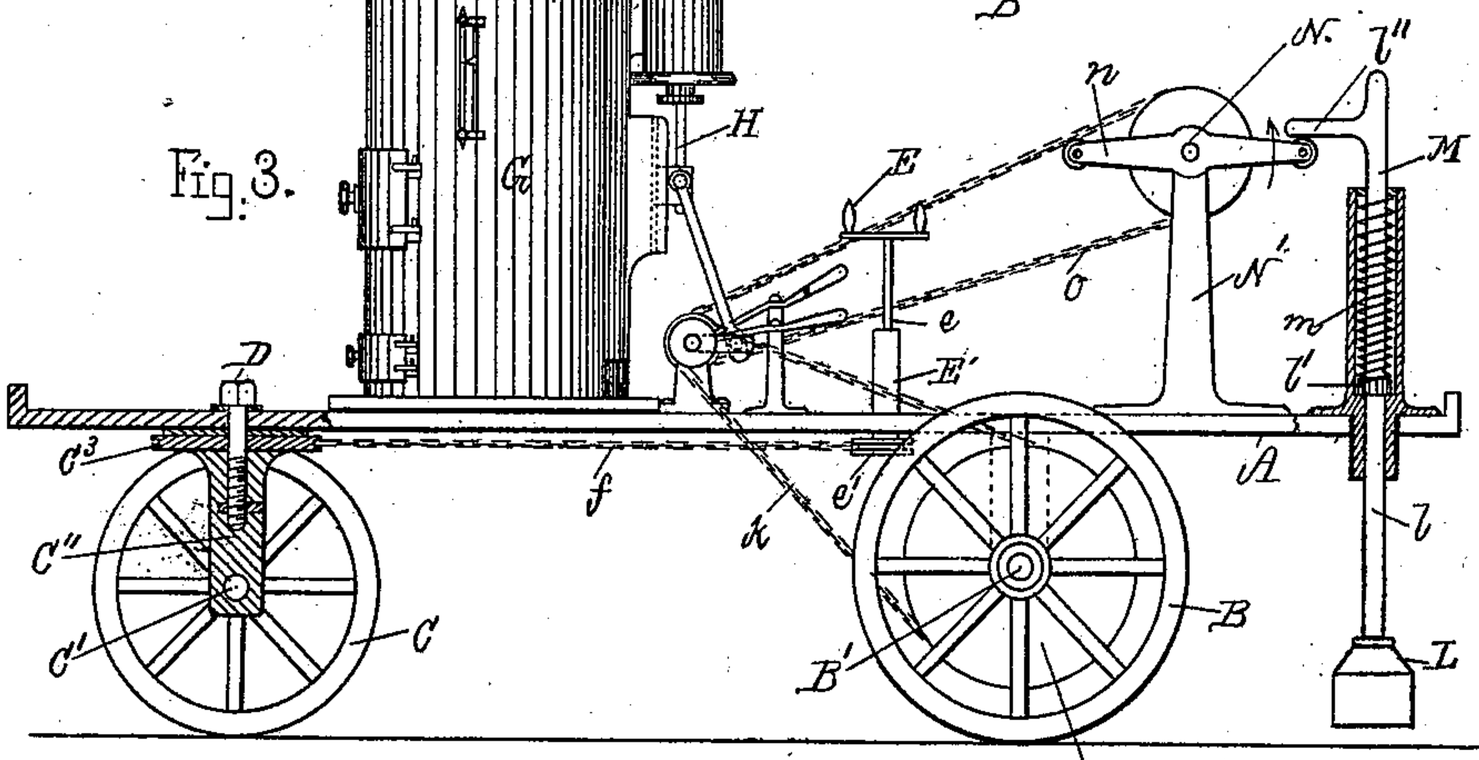


Fig. 2.

Fig. 3.



Witnesses

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Wm. W. Lemmons

Inventor:

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by Albert Andrén

his att'y

UNITED STATES PATENT OFFICE.

WILLIAM Y. OBER, OF LYNN, MASSACHUSETTS.

PAVING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 544,746, dated August 20, 1895.

Application filed March 29, 1893. Serial No. 468,208. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM Y. OBER, a citizen of the United States, and a resident of Lynn, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Paving-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in paving-machines for the purpose of setting the paving-stones firmly in their beds, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a top plan view of the machine. Fig. 2 represents a bottom view; and Fig. 3 represents a side elevation of the improved machine, partly shown in section.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The invention consists of a platform A, mounted upon wheels B B and C C. The wheels B B are secured to an axle B′, journaled in bearings B″ B″ secured to the platform A. The wheels C C are loose upon an axle C′, arranged in bearings C″ C″, connected together and adapted to turn on the transient-bolt D, as is common in traction-carriages. The carriage may be guided to the right or left by any suitable mechanism, and I have in the drawings shown for this purpose a hand-wheel E secured to a vertical spindle *e* journaled in a standard E′ secured to the platform A and having attached to said spindle a sprocket-wheel *e′*, from which leads a sprocket-chain *f* to a similar sprocket-wheel C³, attached to the wheel-bearings C″ C″ or their connections, as shown.

G is a steam-boiler mounted upon the platform A, and H is a steam engine or motor which may be attached to the said boiler or platform as may be most convenient.

h is the driving-shaft of the engine which is journaled in suitable bearings *h′ h′*, as shown. On the driving-shaft *h* is loosely journaled a sprocket-wheel I, having a clutch *i* on the side of it adapted to be connected to a sliding clutch H′ splined on said driving-shaft *h* whenever it is required to impart a rotary motion to the sprocket-wheel I from the engine-shaft for the purpose of propelling the carriage forward or back.

k is a sprocket-chain leading from the sprocket-wheel I to a similar sprocket-wheel K attached to the shaft B′ or one of its wheels, and it will thus be seen that the carriage can be moved by the engine forward or back and guided during such movement by the engineer or person in charge of the machine.

L is the vertically-movable rammer attached to a rod *l*, which is guided in the hollow post or bearing M secured to the car-platform A. The rammer L is raised upward against the influence of a spring *m*, preferably surrounding the rod *l* and located within the hollow bearing M between the upper end of the latter and a collar or projection *l′* on the rod *l*, as shown in Fig. 3.

The mechanism for lifting the rammer L consists of a rotary shaft N located in suitable bearings N′ N′ and provided with arms or lifter-levers *n n*, adapted to come in contact with a projection *l″* on the upper end of the rammer-rod *l*, as shown in Figs. 1 and 3.

n′ is a sprocket-wheel attached to the shaft N, and from said sprocket-wheel leads a sprocket-chain O to a sprocket-wheel P loosely journaled on the driving-shaft *h* and provided with a clutch *p* adapted to engage with a sliding clutch H″ splined on the driving-shaft *h*. It will thus be seen that a rotary motion is conveyed to the shaft N for the purpose of actuating the rammer L simply by connecting the clutches H″ and *p*.

This improved paving-machine is very simple in construction, is under the perfect control of the operator, who can guide it forward and back to the desired parts of the pavement under construction, and by its means the stones of the pavement can be set in a very firm, rapid, and even manner by the downward-moving rammer L, which is caused to strike the pavement by the influence of its spring for every time the lifter-arms *n* pass by the rammer-rod projection *l″*.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. The herein described paving machine, comprising a wheeled vehicle, a steam engine and boiler mounted on said vehicle, a horizontally rotating shaft and means connecting the engine and shaft for rotating the latter, a sprocket-wheel near each end of said

shaft, a second horizontally rotating shaft mounted near the rear end of the vehicle, a sprocket-wheel mounted on one end of said latter named shaft, a sprocket chain connecting said horizontally rotating shafts, a sprocket-chain connecting said first named shaft and a sprocket-wheel on the drive axle of the vehicle, rotating lifter arms carried by the rear horizontal shaft, a hollow post mounted on the vehicle in rear of said latter named shaft, a spring inclosed within said post, a vertically moving rammer guided by the post and acting under the tension of said spring, and a rearwardly projecting arm on the upper part of the rammer-rod, said arm being acted upon by the rotating lifter-arms whereby the rammer is raised, substantially as described.

2. The herein described paving machine comprising a carriage mounted on wheels, a steam boiler and engine supported on said carriage, a horizontal driving shaft *h* operated by said engine two sprocket wheels I and P carried by said driving shaft, a sprocket wheel K secured to the shaft of the drive wheel of the carriage, a chain connecting the sprocket wheels I and K, for propelling the carriage, a spring-pressed vertically reciprocating rammer L, a rotary shaft having lifter arms to lift said rammer, a chain connecting the rotary shaft to the sprocket wheel P on the driving shaft *h*, for operating the former, and clutch mechanism for engaging and disengaging the sprocket wheels with and from the drive shaft, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 13th day of February, A. D. 1893.

WILLIAM Y. OBER.

Witnesses:

ALBAN ANDRÉN,

ALICE A. PERKINS.