

(No Model.)

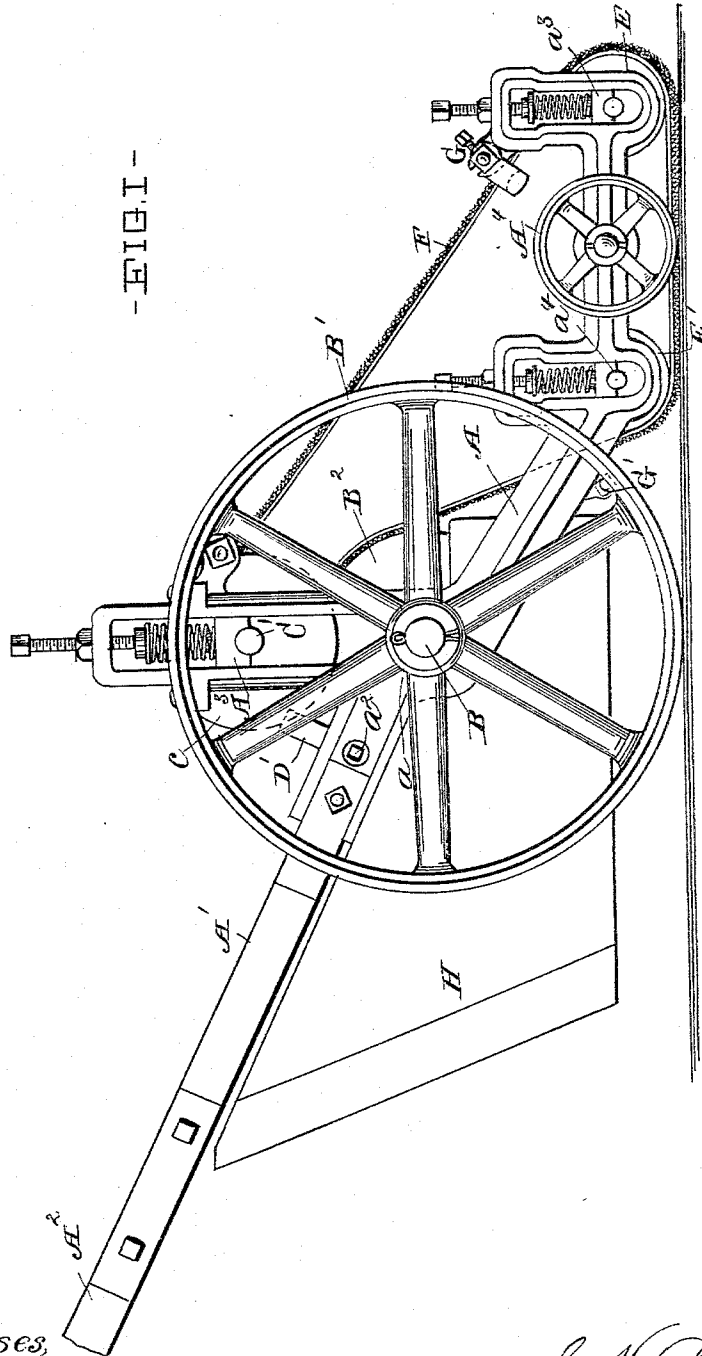
3 Sheets—Sheet 1.

L. H. BRIGHTMAN.
MOPPING MACHINE.

No. 532,020.

Patented Jan. 8, 1895.

-FIG. I-



Witnesses,
J. C. Turner
H. Lecher

Inventor,
L. H. Brightman
By *Hall & Fay*
Attys.

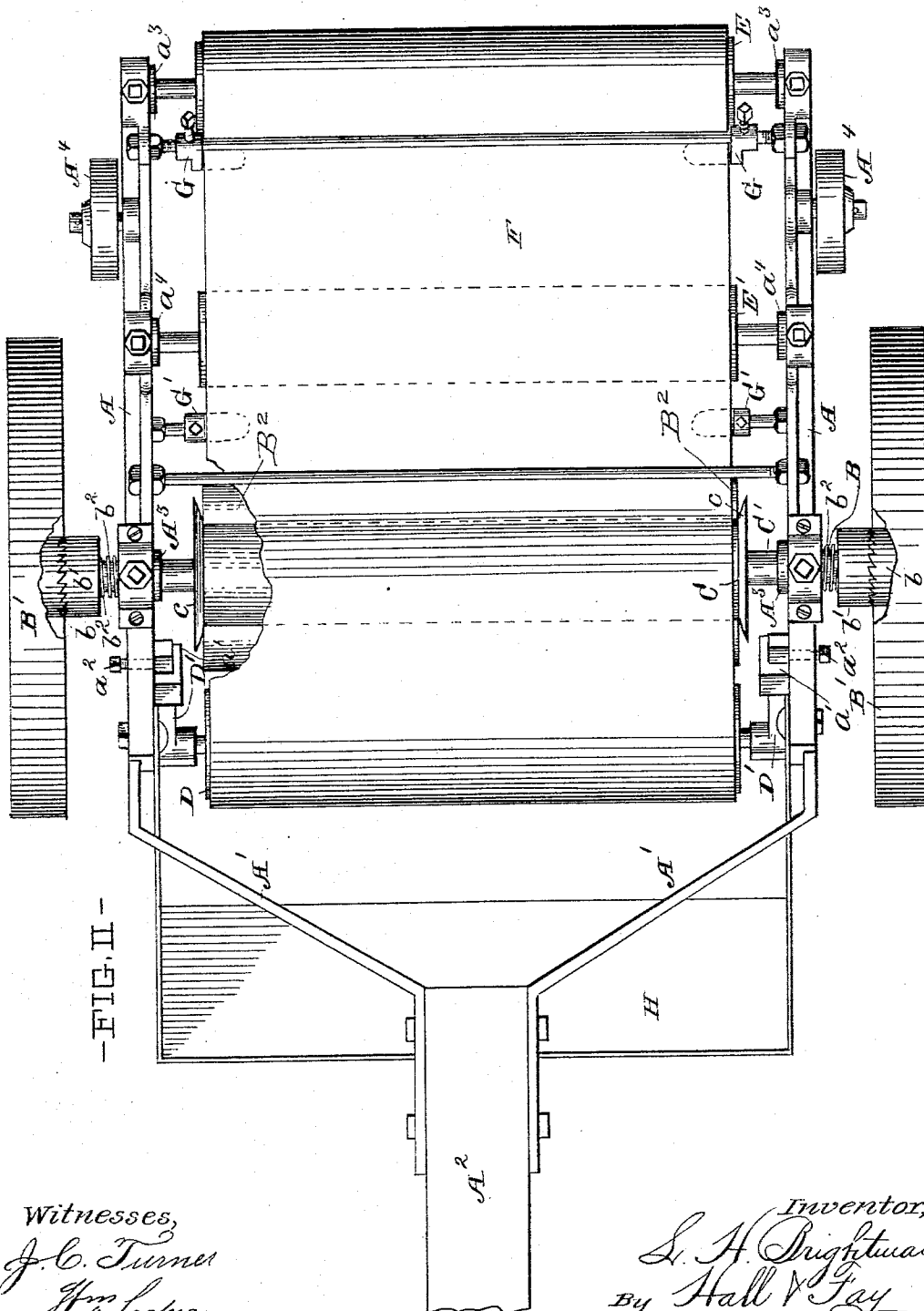
(No Model.)

3 Sheets—Sheet 2.

L. H. BRIGHTMAN.
MOPPING MACHINE.

No. 532,020.

Patented Jan. 8, 1895.



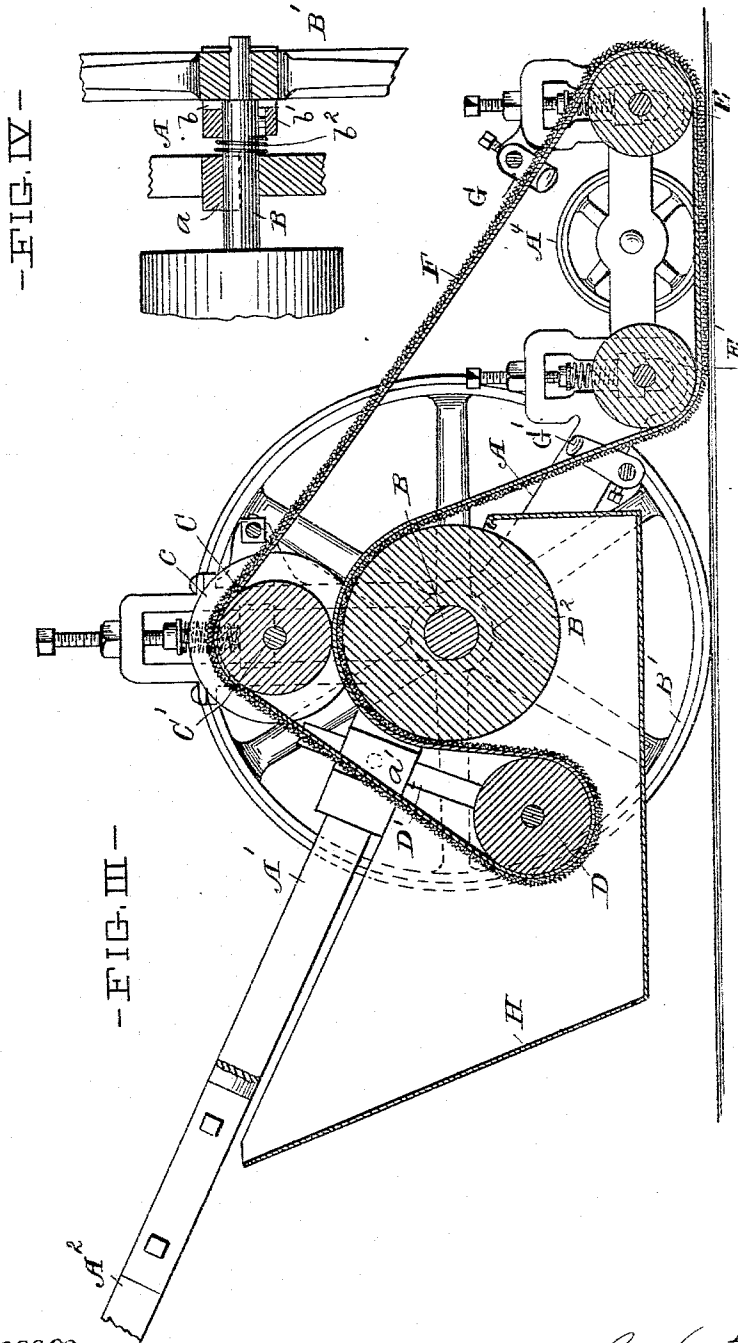
(No Model.)

3 Sheets—Sheet 3.

L. H. BRIGHTMAN.
MOPPING MACHINE.

No. 532,020.

Patented Jan. 8, 1895.



Witnesses,
J. C. Turner
J. M. Lecher

Inventor,
L. H. Brightman
By *Hall V. Fay*
Att'y's.

UNITED STATES PATENT OFFICE.

LATHAM H. BRIGHTMAN, OF CLEVELAND, OHIO.

MOPPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 532,020, dated January 8, 1895.

Application filed June 15, 1894. Serial No. 514,670. (No model.)

To all whom it may concern:

Be it known that I, LATHAM H. BRIGHTMAN, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Mopping-Machines, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The annexed drawings and the following description set forth in detail one mechanical form embodying the invention; such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings—Figure I represents a side elevation of my improved floor mopping machine; Fig. II, a top plan view of the machine; Fig. III, a longitudinal vertical section of the machine, and Fig. IV, a detail view of one of the clutches between the drive wheel and the driving roller shaft.

The frame of the machine has side pieces, A, which are united at their rear ends by means of braces, A', to which a handle, A², is secured. A drive shaft, B, is journaled in bearings, a, in the side pieces, and has drive wheels, B', journaled upon its ends. Said wheels have half-clutches, b, upon the inner faces of their hubs, which half-clutches engage half-clutches, b', which revolve with and slide upon the drive shaft, and are forced against the clutches upon the wheel hubs by means of springs, b². A roller, B², is secured upon the drive shaft, and a smaller roller, C, is secured upon a shaft, C', which is journaled in vertically yielding bearings, A³, in the side pieces of the frame,—said roller C being opposed to the upper side of the larger roller B² and having flanges, c, at its ends, which bear against the ends of the larger roller B². A roller, D, is journaled in the lower ends of bracket bars, D', which slide in boxes, a', and are adjustably secured by means of screws, a²—said boxes being formed upon the side pieces of the frame. Two guide rollers, E and E', are journaled in vertically yielding bearings, a³ and a⁴, in the forward portions of the side pieces of the frame. The side pieces of the frame have small sup-

porting wheels, A⁴, so as to be supported at the proper distance above the floor. An endless mop apron, F, of a suitable material which is capable of absorbing and retaining water and of removing dirt, is carried between the drive roller B² and upper guide roller C, forward beneath the guide rollers E and E', backward and upward over the upper guide roller C, and downward around the adjustable tension roller D, back to the driving roller. Suitable edge guides, G and G', are secured to be transversely adjustable in their relations to the frame,—one pair, G', being arranged to the rear of the rear guide roller E', and the other pair G, being arranged to the rear of the forward guide roller E. A water receptacle H, is secured to the side pieces of the frame, in such manner that the adjustable tension roller D, and the endless mop which passes around it, may be partly or entirely immersed into the water contained in the receptacle.

In practice, the water receptacle H is filled with water, soap suds, or other cleaning liquid, to such extent that the tension roller D and the portion of the mop which passes around the same, may be entirely or partly immersed within the liquid. When now the machine is propelled over the floor or other surface to be mopped, the drive wheels will cause the endless mop to move forward, in the direction in which the machine is propelled, at that portion of the mop which is between the forward and rear guide rollers E and E', and which portion is in contact with the floor. The endless traveling mop will remove the dirt from the floor, carrying the same back into the water receptacle, and be again dampened and wrung between the driving roller and the upper guide or wringing roller C. As that portion of the mop which is in contact with the floor travels with the combined speed of the propulsion of the machine, and the speed imparted to it by the driving roller, the mop will be more effective for the removal of dirt from the floor, than it would be if it were stationary in its relation to the machine and would simply be dragged over the floor. A freshly moistened surface will be continually presented to the floor, and all the dirt which is taken up from the floor by the mop will be carried back into the water re-

ceptacle and rinsed off from the mop. The driving roller and upper guide or wringing roller will remove all surplus water from the mop, so that the mop will just have sufficient moisture to remove dirt without unduly wetting the floor. The guide rollers in the forward portion of the frame have yielding bearings for their ends, so that they may yield to any irregularities in the surface to be mopped, and the upper guide or wringing roller has vertically yielding play, so that it may yield to irregularities in the surface of the endless traveling mop, and may bear with even pressure against all portions of the same. The tension of the endless mop may be adjusted by means of the tension roller D. The edge guides at the two guide rollers E and E' will prevent the mop from becoming skewed in case one side of the traveling mop should meet with more resistance than the other side.

Other modes of applying the principle of my invention may be employed for the mode herein explained. Changes may therefore be made as regards the mechanism thus disclosed, provided the principles of construction set forth respectively in the following claims are employed.

I therefore particularly point out and distinctly claim as my invention—

1. In a mopping machine, the combination of a driving roller, a wringing roller journaled above the driving roller, a water receptacle, a roller in said receptacle, a guide roller, and an endless mopping apron passing between the driving roller and the wringing roller, around the guide roller, over the wringing roller, and around the roller in the water receptacle, substantially as set forth.

2. In a mopping machine, the combination of a driving roller, two horizontally arranged guide rollers,—one in advance of the other,—a wringing roller opposed to the driving roller, a water receptacle, a roller within the water receptacle and having means for adjusting its position in relation to the other rollers, and an apron passing around said last-mentioned roller, between the driving roller and the wringing roller, beneath the guide rollers and over the wringing roller, substantially as set forth.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 9th day of June, A. D. 1894.

LATHAM H. BRIGHTMAN.

Witnesses:

WM. SECHER,
DAVID T. DAVIES.