

(No Model.)

A. MORLOCK.

GRINDING OR PULVERIZING MILL.

No. 373,190.

Patented Nov. 15, 1887.

Fig. 2

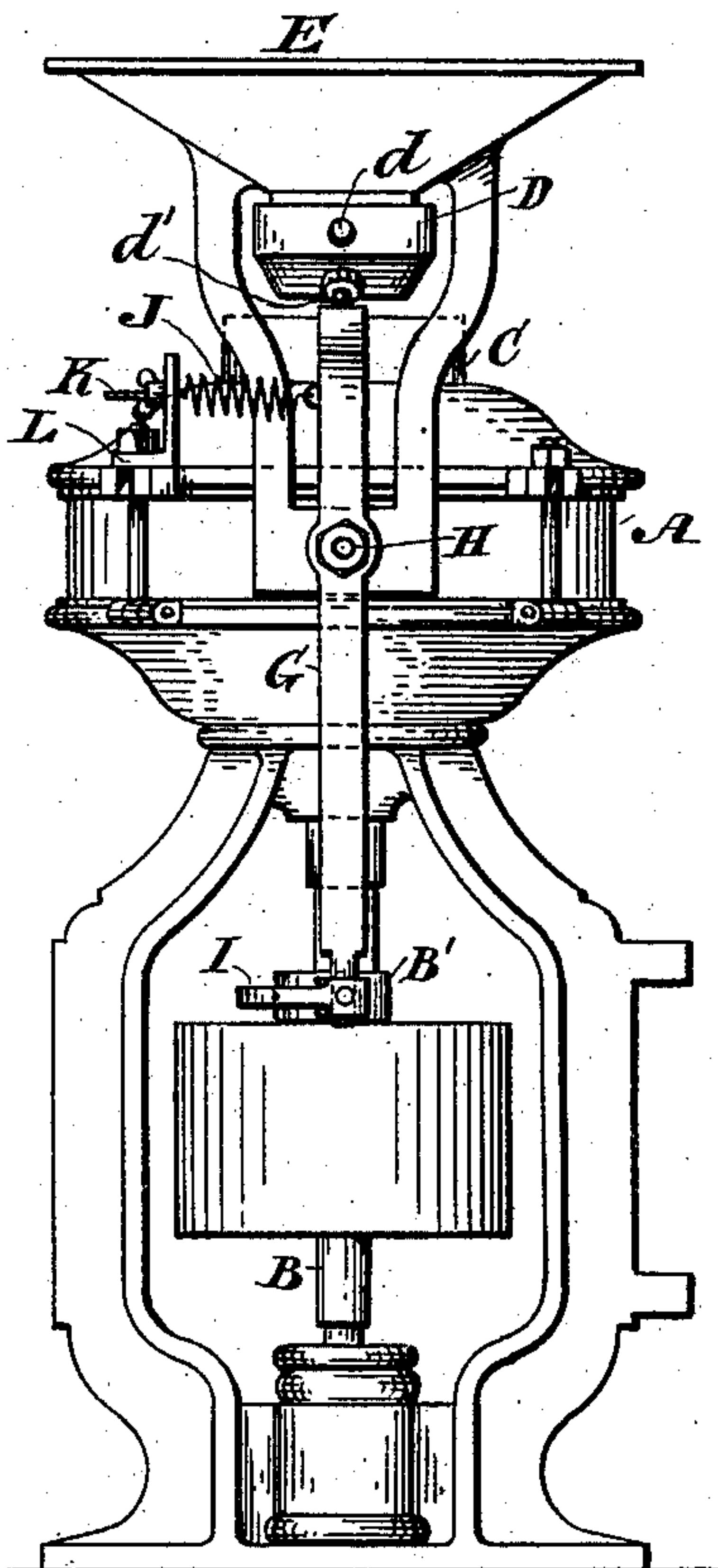
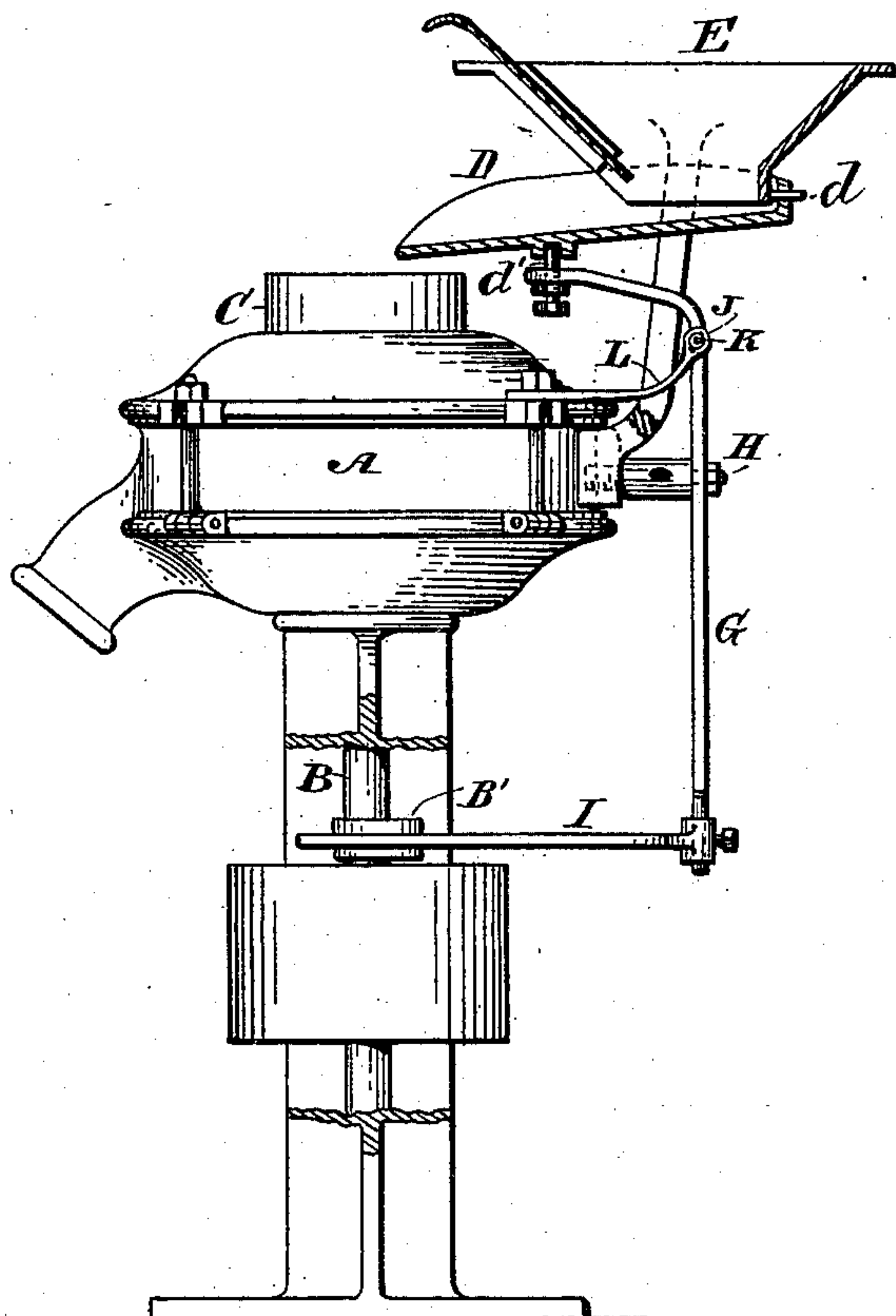


Fig. 1.



Witnesses
James D. Griswold,
Maurice Roach.

Inventor
Albert Morlock,
by his Attorneys,
Gifford Brown

UNITED STATES PATENT OFFICE.

ALBERT MORLOCK, OF BROOKLYN, NEW YORK, ASSIGNOR TO JAMES S. SIMPSON AND GEORGE F. SIMPSON, BOTH OF SAME PLACE.

GRINDING OR PULVERIZING MILL.

SPECIFICATION forming part of Letters Patent No. 373,190, dated November 15, 1887.

Application filed February 4, 1887. Serial No. 226,537. (No model.)

To all whom it may concern:

Be it known that I, ALBERT MORLOCK, of Brooklyn, Kings county, and State of New York, have invented a certain new and useful
5 Improvement in Feeding Mechanism for Grinding and Pulverizing Mills, of which the following is a specification.

I will describe my improvement in detail, and then point out the various features in the
10 claims.

In the accompanying drawings, Figure 1 is a side elevation of the mill, with some of the parts in section and others broken away, embodying my improvement. Fig. 2 is a rear
15 elevation of the same.

Similar letters of reference designate corresponding parts in both figures.

The mill in connection with which I have shown my present improved feeder embodied,
20 is known as an "eccentric mill;" but it may be of any desired or suitable construction.

My present improvement relates particularly to the means for feeding material into a chamber, A, containing mill plates.

25 D designates a chute, which is of concavo-convex form, tilted downwardly at the forward end, which projects over a collar, C, on the upper mill-plate. The chute is hung at the rear end upon a pivot-pin, *d*, extending
30 from the base-section of a feed-hopper, E, and is supported at its forward end upon a pin, *d'*, which is affixed to a lever, G. This pin will preferably be made in the form of a screw, and pass through a screw-threaded hole in the lever,
35 and may be provided with a jam-nut, so that the pin may be elevated or lowered to vary the inclination of the chute.

The lever G is fulcrumed between its ends upon the stud H, extending horizontally and
40 rearward from the frame of the mill. The lower end of the lever has affixed to it an arm, I. As shown, this arm has a socket at one end which fits upon the lower end of the lever, and is capable of being secured thereto in different
45 positions by means of a set-screw. This

arm I is acted upon by a cam or eccentric, B', which is mounted upon the main shaft B of the mill, so as to rotate with the latter. The upper part of this lever has connected to it one end of a spring, J, whose other end is connected
50 to a screw, K, which latter extends through a standard, L, mounted on the mill-frame. A nut applied to this screw provides for adjusting the same lengthwise to vary the tension of the spring. The spring J vibrates the lever in
55 one direction and the cam B' vibrates the lever in the other direction.

By adjusting the arm I at different angles to the lever G the throw of the lever may be varied, because as the lever is moved nearer to
60 or farther from the shaft B it will be acted upon more or less by the cam B', whereby the rocking motion of the lever G will be augmented or increased. By this means the degree of vibration of the chute D can be varied
65 as desired, so as to regulate the feed to the mill.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a mill, the combination, with a vertical main shaft, of a cam mounted on said shaft,
70 a rocking lever, an adjustable arm on said lever near its lower end extending into a position to be operated upon by said cam, and a chute connected to said arm and vibrated
75 thereby, substantially as specified.

2. In a mill, the combination, with a vertical main shaft, of a cam mounted thereon, a rocking lever, an adjustable arm on said lever
80 extending into a position to be operated upon by said cam to rock the lever in one direction, a spring for rocking the lever in the other direction, and a chute connected with said lever and vibrated thereby, substantially as specified.

ALBERT MORLOCK.

Witnesses:

S. L. COWLES,
F. H. SAWTELLE.