

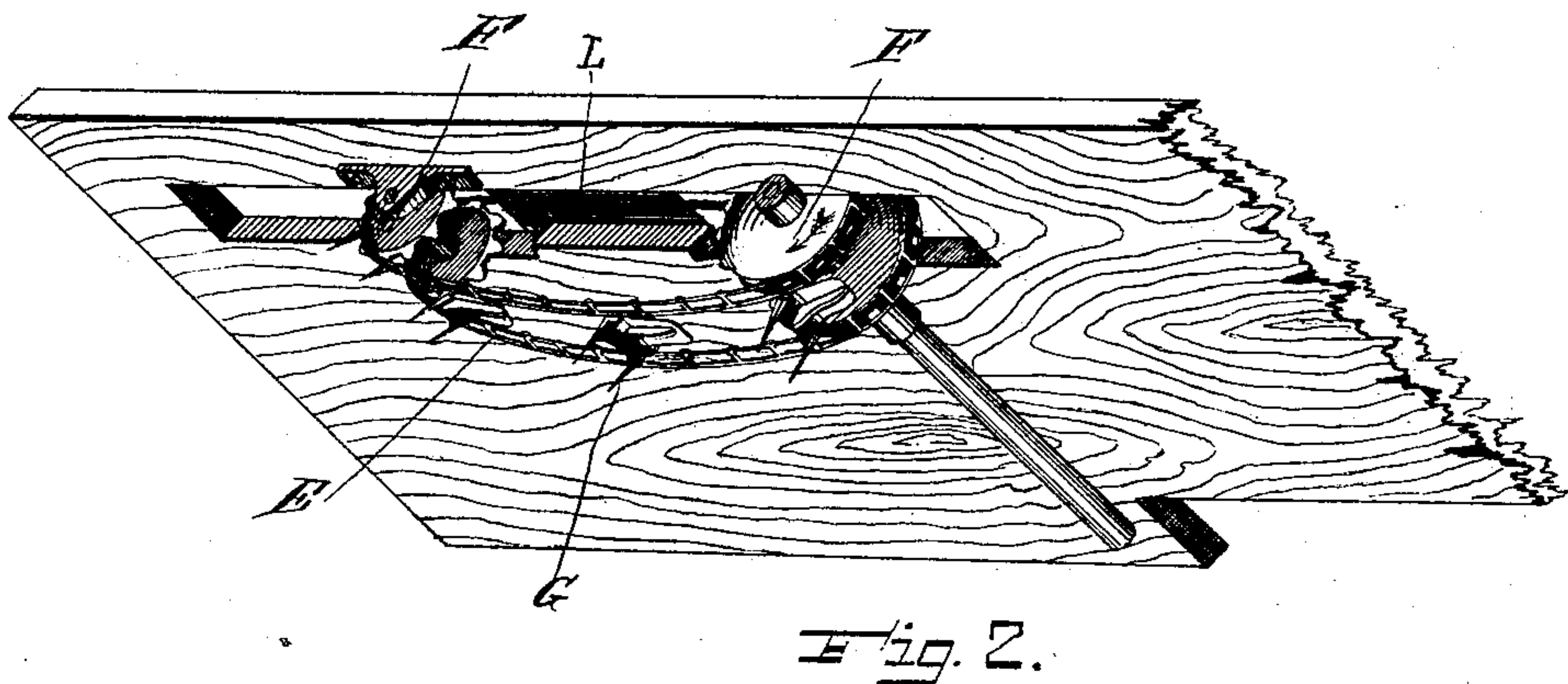
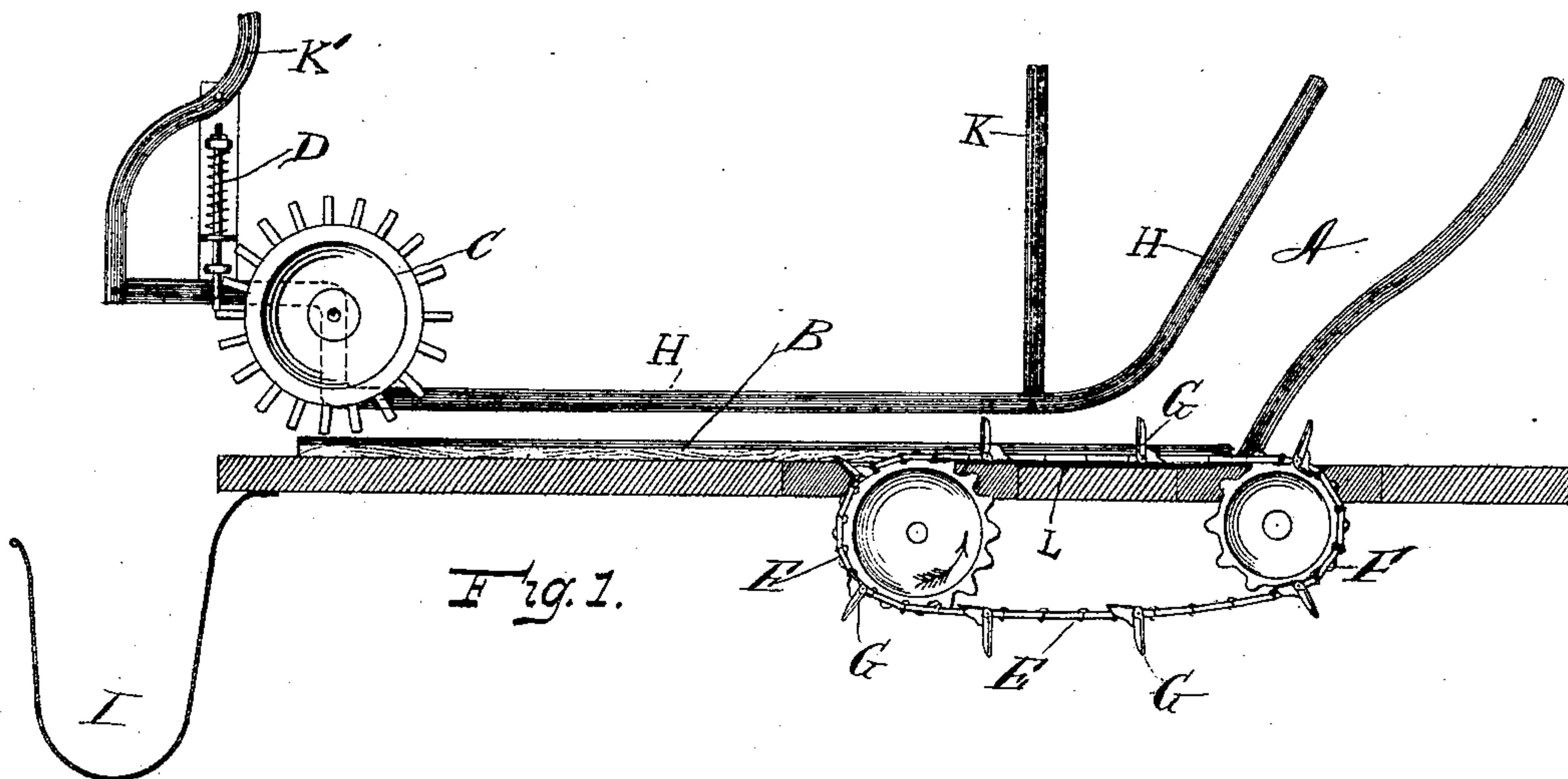
(No Model.)

G. A. LOWRY.

AUTOMATIC FEEDER FOR TWINE MAKING MACHINES.

No. 480,873.

Patented Aug. 16, 1892.



WITNESSES:

Chas. H. Platto.  
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INVENTOR

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Hall and Brown

ATTORNEYS



# UNITED STATES PATENT OFFICE.

GEORGE A. LOWRY, OF CHICAGO, ILLINOIS.

## AUTOMATIC FEEDER FOR TWINE-MAKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 480,873, dated August 16, 1892.

Application filed June 4, 1891. Serial No. 395,016. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. LOWRY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new useful Improvement in Automatic Feeders for Twine-Making Machines, of which the following is a specification.

This invention relates to an improvement in automatic feeders for twine-machines of the general class for which an application for Letters Patent was filed by me on the 22d day of December, 1890, bearing Serial No. 375,524.

The invention consists, substantially, in the construction hereinafter described and claimed.

Like letters of reference are used to designate the same parts in the several figures of the drawings, in which—

Figure 1 is a vertical section of my improved feeder, and Fig. 2 is a perspective view of a portion of the platform of the feeder and the endless feeding-chain used in connection therewith.

A designates the hopper, which may be of any suitable form of construction. This hopper leads to the platform B, at the opposite end of which is a wheel or spider C, having a number of spokes which project therefrom, and are successively brought adjacent to the platform and the material thereon. Mounted adjacent to the spider is a spring or yielding stop which normally rests against the end of one of the spokes of the spider and prevents the rotation of the latter until the spring-pressure of the stop is overcome. In the present instance I have shown the stop in the form of a vertical bolt, pressed downward by a surrounding coiled spring, the whole being designated by the letter D.

At a point in the platform near the hopper A, I cut a slot which extends the proper distance longitudinally of such platform, and underneath such platform I mount two sprocket-wheels F F, whose upper edges pass through the slot in the platform and are approximately level with the upper side thereof. Around these sprocket-wheels is passed an endless chain E, composed of jointed sections in the usual manner and provided at intervals with pivoted plates G, which latter are preferably provided with a horizontal tongue to hold

the main portion of the plate upright and in a rigid position while they are feeding the grass. That portion of the slot between the sprocket-wheels is covered by a horizontal plate L of metal or other suitable material, which plate may be let into a rabbet in the top surface of the platform, so that it will be flush therewith, and thereby furnish a smooth supporting-surface for the hinged plates to travel upon until they pass beyond the same. Hinged plates of this kind have been fully described in my former application before referred to. I also prefer to mount above the platform a frame H, composed of a bar held at a certain distance above the platform, which rests upon the grass transversely of the length of the same and prevents such grass from bunching up. The bar H extends horizontally above the platform and serves to keep the grass in position, and at one end this bar is projected at an upward inclination to form the upper part of the hopper, and at its other end it has an angular portion which is utilized as a bearing for the wheel or spider. Two brackets K' K, secured to the main frame of the machine, are also attached to the bar H and serve to support it.

Various modifications may be made in the construction herein shown and described by persons skilled in the art without departing from the spirit of the invention.

The operation of my improved feeder is as follows: The grass is placed in the hopper A and is fed toward the rear of the platform by means of the endless chain provided with the plates. This endless chain is arranged to feed the grass from the hopper somewhat faster than the nippers remove it from the platform; but when the amount of grass fed to the nippers becomes too great its pressure upon the wheel or spider C will be sufficient to overcome the action of the yielding stop, and consequently the wheel or spider will turn the distance of one notch or tooth and carry the surplus grass into the pan I at the end of the platform, from which it can afterward be taken and put back into the hopper.

It is manifest that the spider and yielding stop act as a safety-valve to regulate the quantity of grass presented to the nippers at any one time and that this regulator may be employed for various kinds of carriers or feeders.



Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. In an automatic feeder for a twine-machine, the combination of a feeding mechanism with a revoluble wheel or spider located in the path of the material being fed and normally stopping the passage of the same so as to form a pile, and a yielding stop for normally limiting the revolution of such wheel or spider and periodically releasing the same when the excess of material in the pile or bundle overcomes the action of such stop, substantially as and for the purpose set forth.
2. In an automatic feeder, the combination of mechanism for regularly feeding forward the material with a revoluble wheel or spider arranged in the path of such material and at a suitable distance from the feeding mechanism and a spring-acted bolt resting normally against one of the spokes of the spider and tending normally to limit its revolution, whereby the material will be fed forward into a bundle or pile against the wheel, and when

such bundle or pile becomes too large the excess of pressure will overcome the spring-acted bolt, and the wheel or spider will then revolve and carry off a portion of the accumulated material, substantially as and for the purpose set forth.

3. In an automatic feeder, the combination of a feeding-platform and endless chain provided with plates projecting through such platform near one end thereof, a wheel or spider mounted adjacent to the other end of such platform, and a spring-acted bolt resting against one of the spokes of such wheel or spider and acting to restrain the revolution of the latter, except under the accumulation of pressure, substantially as and for the purpose set forth.

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

GEORGE A. LOWRY.

Witnesses:

J. L. GERRY,

LLEWELLYN C. MERRILL.