No. 632,373. Patented Sept. 5, 1899.

L. S. SAFFORD.

AUTOMATIC SINK DOOR OPENER.

(Application filed Sept. 12, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

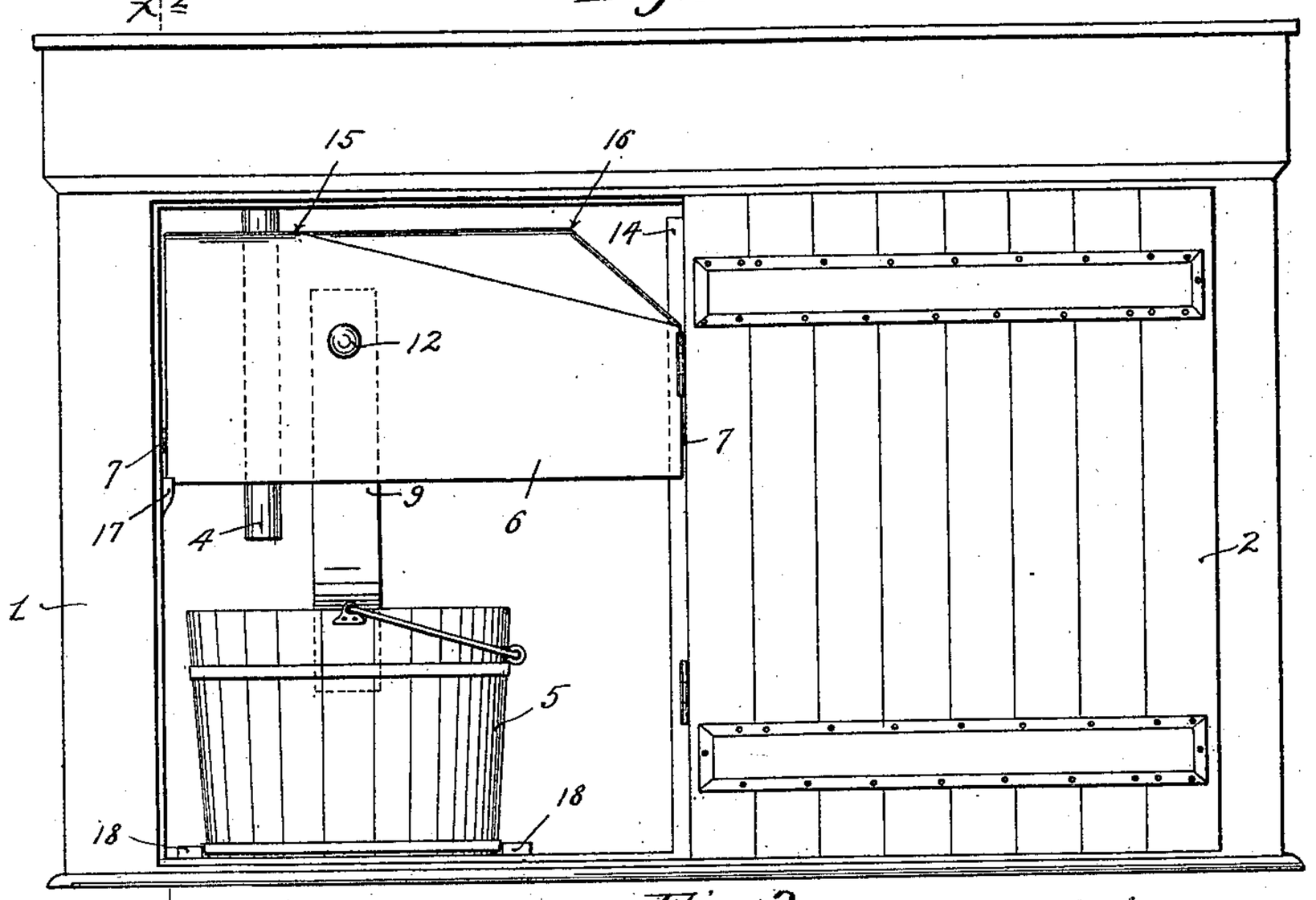
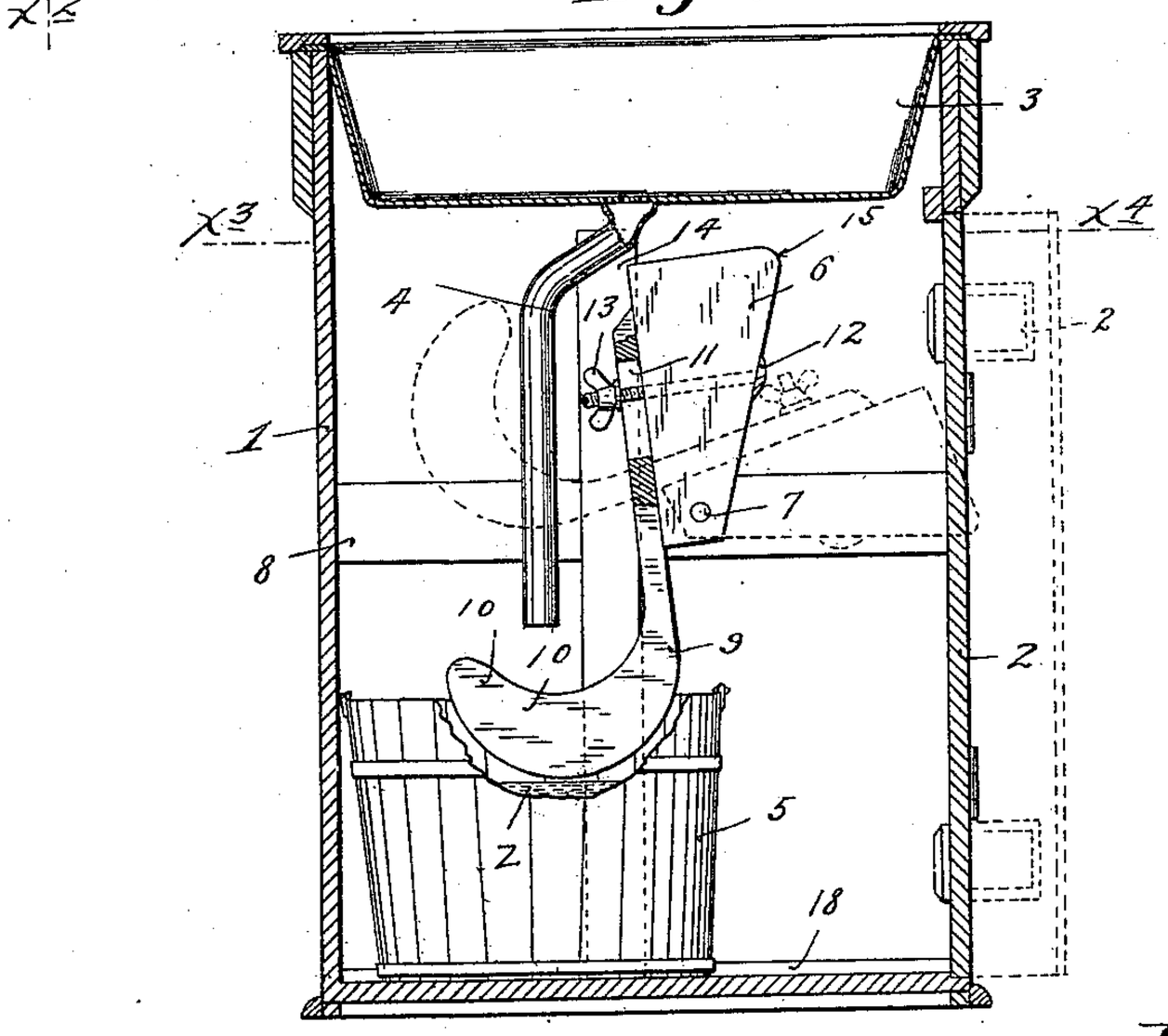


Fig. 2.



Witnesses.
Harry Kilgore.
B B. Nelson

Inventor.
Larkin S. Safford.
By his Attorney.
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Fig. 3.

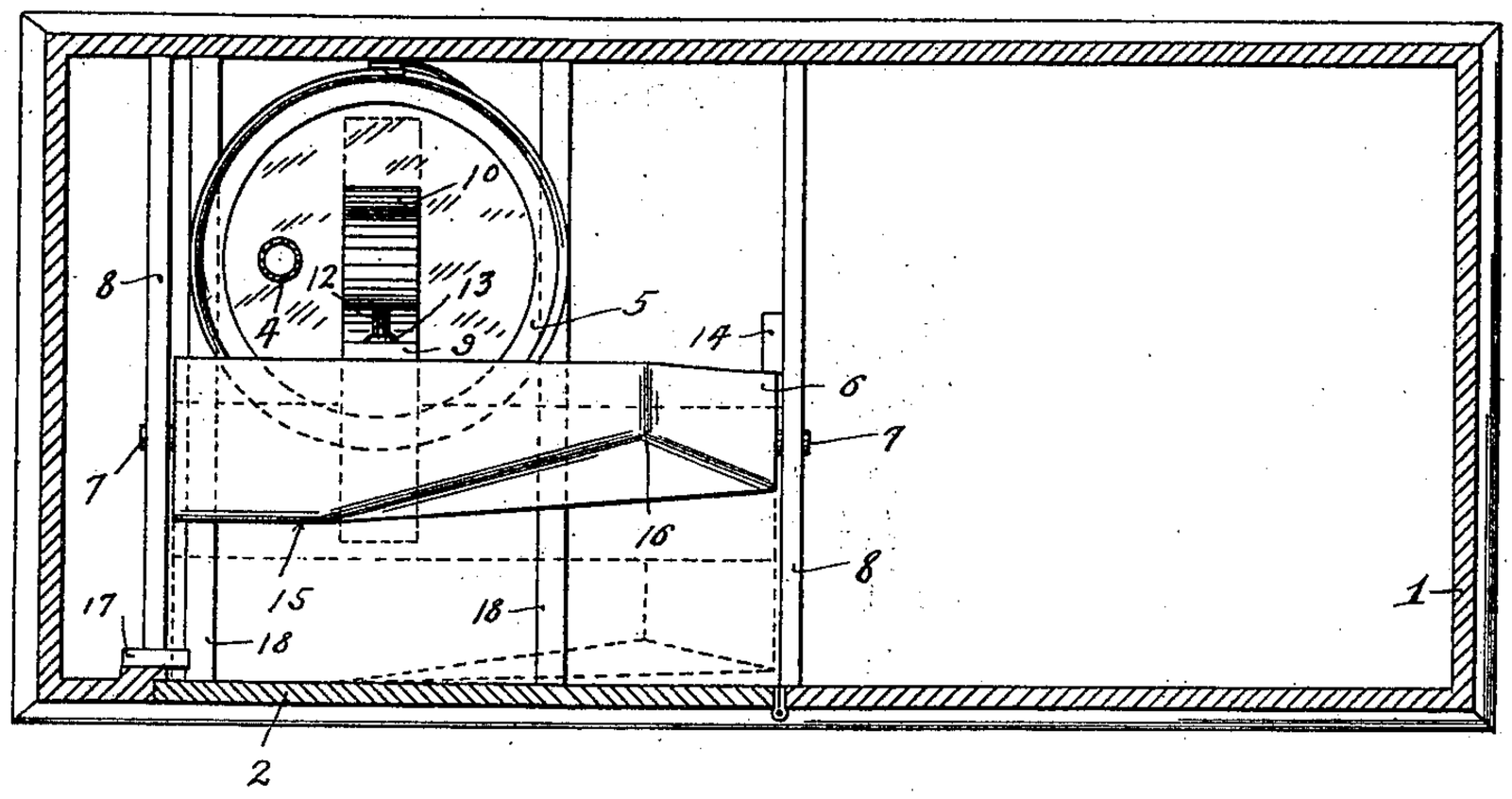
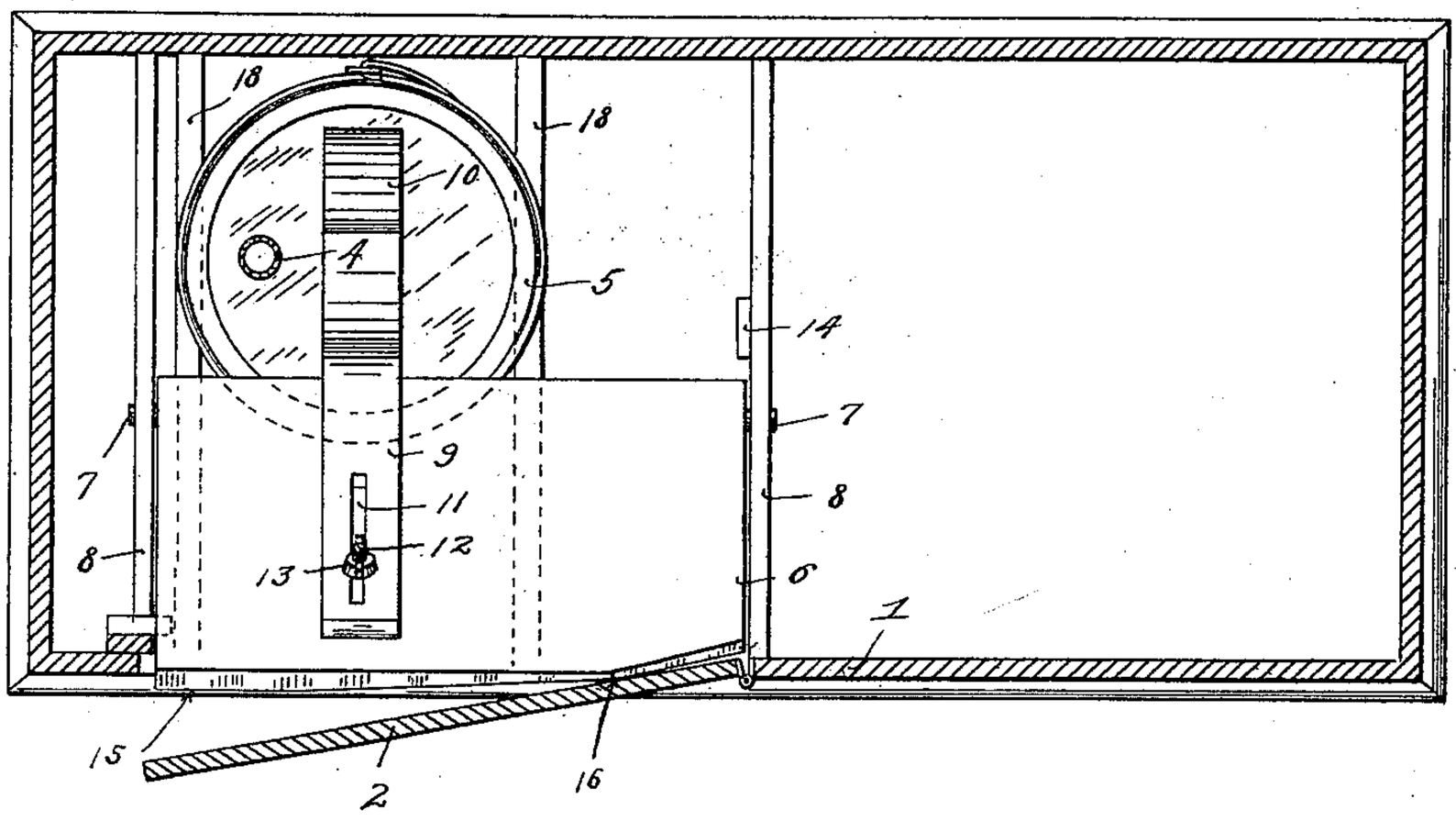


Fig. 4.



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UNITED STATES PATENT OFFICE.

LARKIN S. SAFFORD, OF KELSO, NORTH DAKOTA.

AUTOMATIC SINK-DOOR OPENER.

SPECIFICATION forming part of Letters Patent No. 632,373, dated September 5, 1899.

Application filed September 12, 1898. Serial No. 690,734. (No model.)

To all whom it may concern:

Be it known that I, LARKIN S. SAFFORD, a citizen of the United States, residing at Kelso, in the county of Traill and State of North Dakota, have invented certain new and useful Improvements in Automatic Sink-Door Openers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide a simple and efficient device for use in connection with sinks to indicate when the catch pail or receptacle has become nearly filled.

As is well known, in suburban and rural districts sinks such as are ordinarily used in kitchens are provided with drip-pipes arranged to discharge into catch-buckets or similar receptacles usually placed within a cabinet located beneath the bowl of the sink. As a matter of fact, in the use of such devices these catch pails or receptacles are continually being overfilled, so that the soiled water is caused to run onto the floor. By my invention I provide a device which is operated by a float properly positioned within the catch bucket or receptacle, so that when said bucket or receptacle is nearly filled it will cause the said device to indicate this fact.

The invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The preferred form of the said invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a front elevation of an ordinary sink and cabinet having one of my improved indicating devices applied thereto and operative to open the door of the cabinet, said door being shown as wide open. Fig. 2 is a transverse vertical section taken on the line x^2 x^2 of Fig. 1; and Figs. 3 and 4 are horizontal sections taken approximately on the line x^3 x^4 of Fig. 2, but illustrating different positions of certain of the parts.

1 indicates the cabinet, which is provided with an ordinary hinged door 2 and supports an ordinary sink-bowl 3, provided with a depending drip-pipe 4.

5 indicates a catch-bucket which is placed within the cabinet below the open lower end of the drip-pipe 4.

6 indicates a quite heavy knocker or block, preferably of wood, which is pivoted by projecting trunnions 7 to transverse bars or boards 8 of the cabinet 1. This block or knocker 6 is of such dimensions that as it is thrown down to its limit, as shown by dotted lines in Fig. 2, it will strike the door 2 and throw the same open. This block 6 has a depending float which, as shown, is in the form of a wooden stem 9, with an enlargement or head 10 at its free end and with a slot 11 at its other end. A bolt 12, passed through the knocker 6 and the slot 11 and provided with a thumb-nut 13, serves to adjustably secure the stem 9 to said knocker 6. The stem 9 and its head 10 are properly adjusted or set by the means just described, and the catch-pail 5 is set immediately under the float end or head 10, which, it should be noted, is located close by the side of the drip-pipe 4. By reference to Fig. 2 it will be seen that the float 9 10 and knocker 6 are so set that their own gravity will hold said knocker 6 against a fixed stop 14. As the water (indicated at *z*) in the catch-pail 5 rises onto the float or head 10 it will before said pail has been filled raise said head 10 far enough to throw the center of gravity of the knocker 6 outward of a vertical line passing through the pivot 7, and when this has been done said knocker will fall by its own gravity against the door 2 and force and hold the same open until reset. The device cannot be reset until the catch-pail has been emptied. It will be noted that the free portion or edge of the knocker 6 is beveled, so as to form two projections 15 and 16. When the knocker 6 is thrown downward, the projection 15 will strike the door 2 near its free edge, at which point it has the greatest leverage; but when the door has been forced as far as it can be held by said knocker the projection 16 will have contact with the door at a point near to its hinge.

From the foregoing description it is thought to be obvious that I provide an extremely simple and efficient device for the purposes had in view.

The device described may be very readily applied to existing sinks and does not require any special preparation in most cases.

17 indicates a stop which serves to limit the downward movement of the knocker 6, and 18 indicates a pair of parallel transversely-extended cleats or guide-strips which are secured to the bottom of the cabinet 1 and serve to guide the catch-bucket 5 to its proper position under the discharge-tube 4 and float 10.

It will also be understood that various alterations in the details of construction above specifically described may be made without departing from the spirit of my invention.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination with a sink involving a bowl and a cabinet having a movable door, of a catch bucket or receptacle within said cabinet for receiving the drippings from said bowl, and a float subject to the action of the liquid within said catch pail or receptacle and provided with means for causing said door to be opened, substantially as described.

2. The combination with a sink involving a bowl and a cabinet having a swinging door, of a catch pail or receptacle within said cabinet, and a pivoted gravity-held knocker or block arranged to open said door when tripped, and provided with the projecting float which, under the action of the rising liquid within said catch pail or receptacle will trip the same, substantially as described.

3. The combination with the cabinet 1 with swinging door 2, bowl 3 and catch pail or receptacle 5, of the pivoted knocker 6, and the float projection 9, 10 having the slot 11 and secured by the nutted bolt 12 13, substantially as described.

4. The combination with the cabinet with swinging door and bowl, of the catch pail or receptacle receiving the drippings from said bowl, the pivoted knocker or block, and the float adjustably secured to said knocker or block, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LARKIN S. SAFFORD.

Witnesses:

B. B. NELSON,

F. D. MERCHANT.