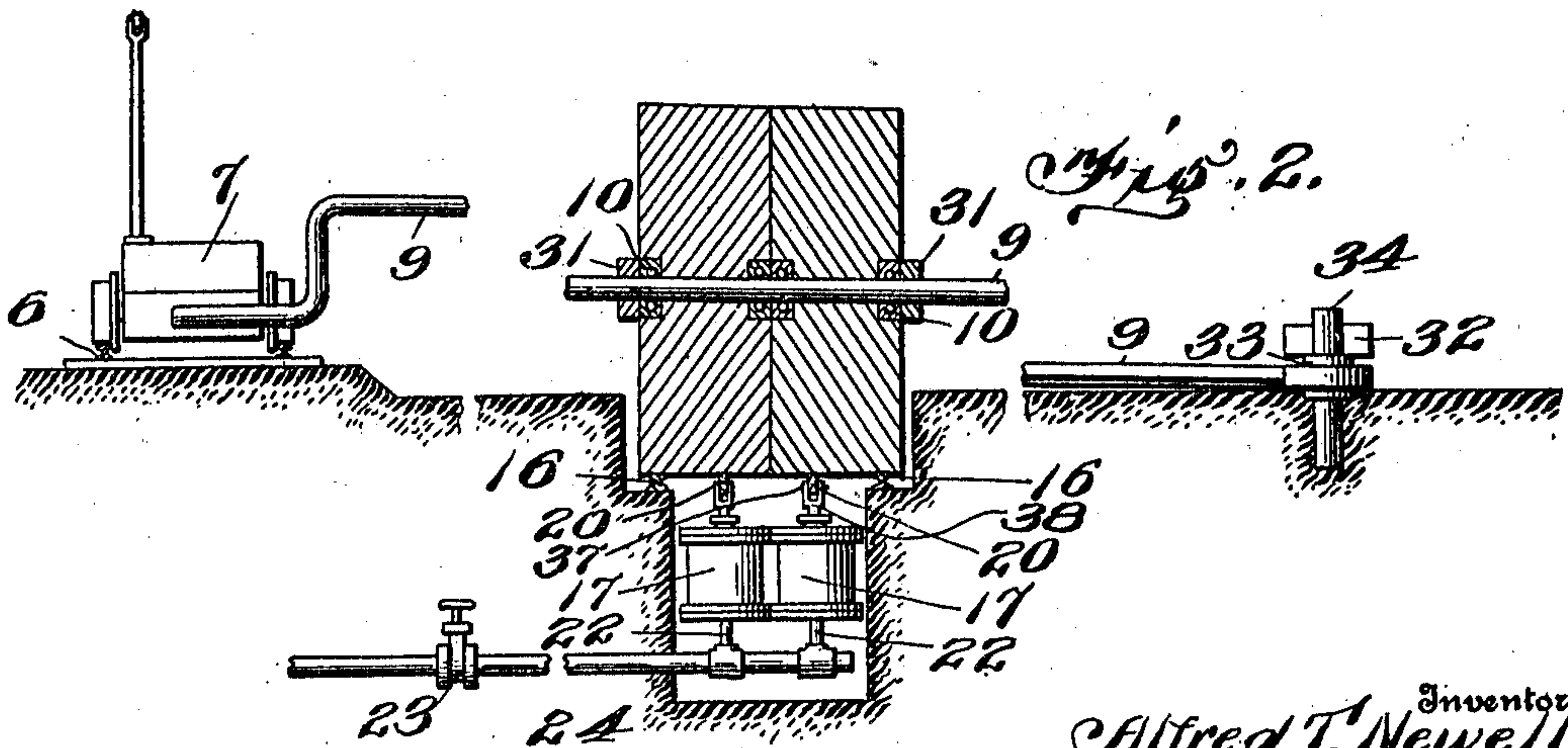
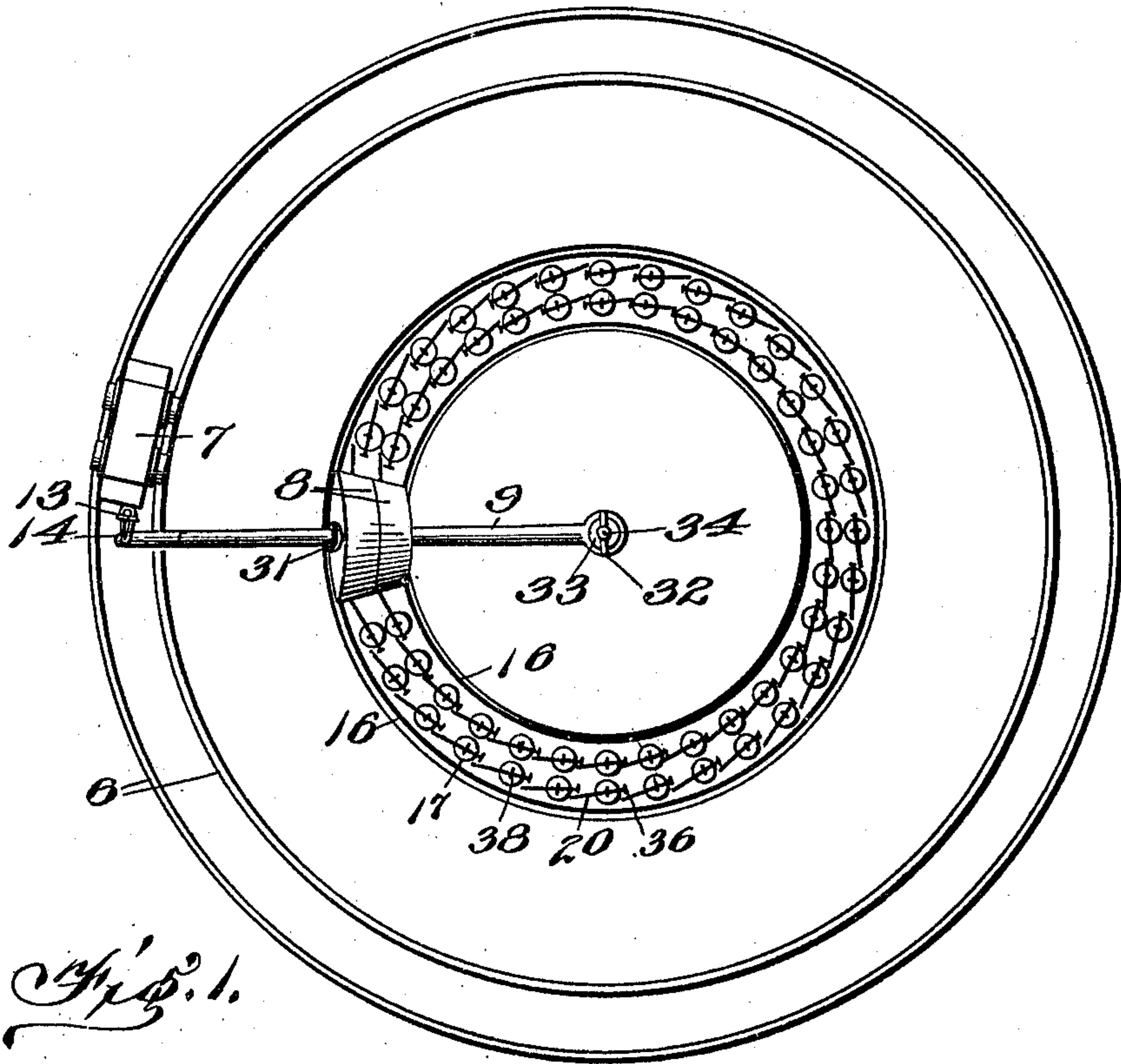


A. T. NEWELL.
AIR COMPRESSOR.

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957,084.

Patented May 3, 1910.



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UNITED STATES PATENT OFFICE.

ALFRED T. NEWELL, OF BIRMINGHAM, ALABAMA.

AIR-COMPRESSOR.

957,084.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed March 26, 1909. Serial No. 485,868.

To all whom it may concern:

Be it known that I, ALFRED T. NEWELL, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Air-Compressors, of which the following is a specification.

This invention relates to air-compressors of that type having a weighted roller which is drawn by a suitable motor around a circular track, and in its course rolls over levers connected to the pistons of air pumps set between the rails of the track and depresses said levers and pistons, thereby compressing the air, in the pumps.

The present invention is an improvement or modification of the apparatus shown and described in my pending application No. 481,303, filed March 5th, 1909 and the object of the present invention is to get more leverage on the axle which carries the roller, and the pistons, and to enable the motor to run at higher speed.

The invention is illustrated in the accompanying drawings in which—Figure 1 is a plan view of the apparatus. Fig. 2 is a cross sectional view thereof.

Referring specifically to the drawings, 6 indicates the rails of a circular track, the diameter of which is greater than the diameter of another track formed by rails 16, the tracks being concentric. A motor 7 travels on the track 6. This is here shown as one track and one motor, but the number of tracks and motors which can be used is not limited, nor is the form of motive power limited to electricity.

An axle 9 extends through rollers 8, being fastened to and revolving about a pin 34 at the center of the tracks, being held to the pin by a key 32 and washer 33. Suitable collars 31 are placed on the axle 9 to hold the rollers 8 in proper position and to retain the balls 10 in their proper bearing. At the outer end the axle is bent as shown in Fig. 7 to suitable height for connection to the motor by a coupling 13 provided with

a spring 14. The rollers 8, running on the track 16, are arranged to depress the levers 20 connected by suitable cross head 38 by means of pin 37 to pistons of pumps 17 in a manner similar to that described in my pending application above referred to, and the compressed air is conveyed by pipes 22 to a main 24 which may be extended to any suitable reservoir. The levers connected to said pumps 17 are at one end connected to suitable fulcrum 36 by means of pin 35.

In my said pending application the motor is hitched to the rollers 8 directly in front of the same. By means of the extended axle 9 and the larger track for the motor, also by the levers 20 an increased leverage is afforded which permits the use of a smaller power motor traveling at a higher rate of speed. By increasing the number of rollers and motors the capacity of the apparatus can be correspondingly increased. The rollers 8 engaging with the levers 20 at a point beyond cross head 38 and equal to the distance between cross-head 38 and fulcrum 36 thereby as roller 8 advances increases the leverage obtained by lever 20 to compress the air in pump 17 as the pressure of air increases. Lever 20 is curved upward at the outer end to insure the full stroke of piston.

I claim:

In a non-rotatable air-compressor, the combination of inner and outer circular concentric tracks, an axle pivoted at one end at the center of said tracks and extending radially over the same, a roller carried by said axle and located on the inner track, pumps under said track, having operating means actuated by the passage of the roller thereover, and a motor mounted on the outer track and connected to the outer end of the axle.

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

ALFRED T. NEWELL.

Witnesses:

W. B. NEAL,
F. F. BYRD.