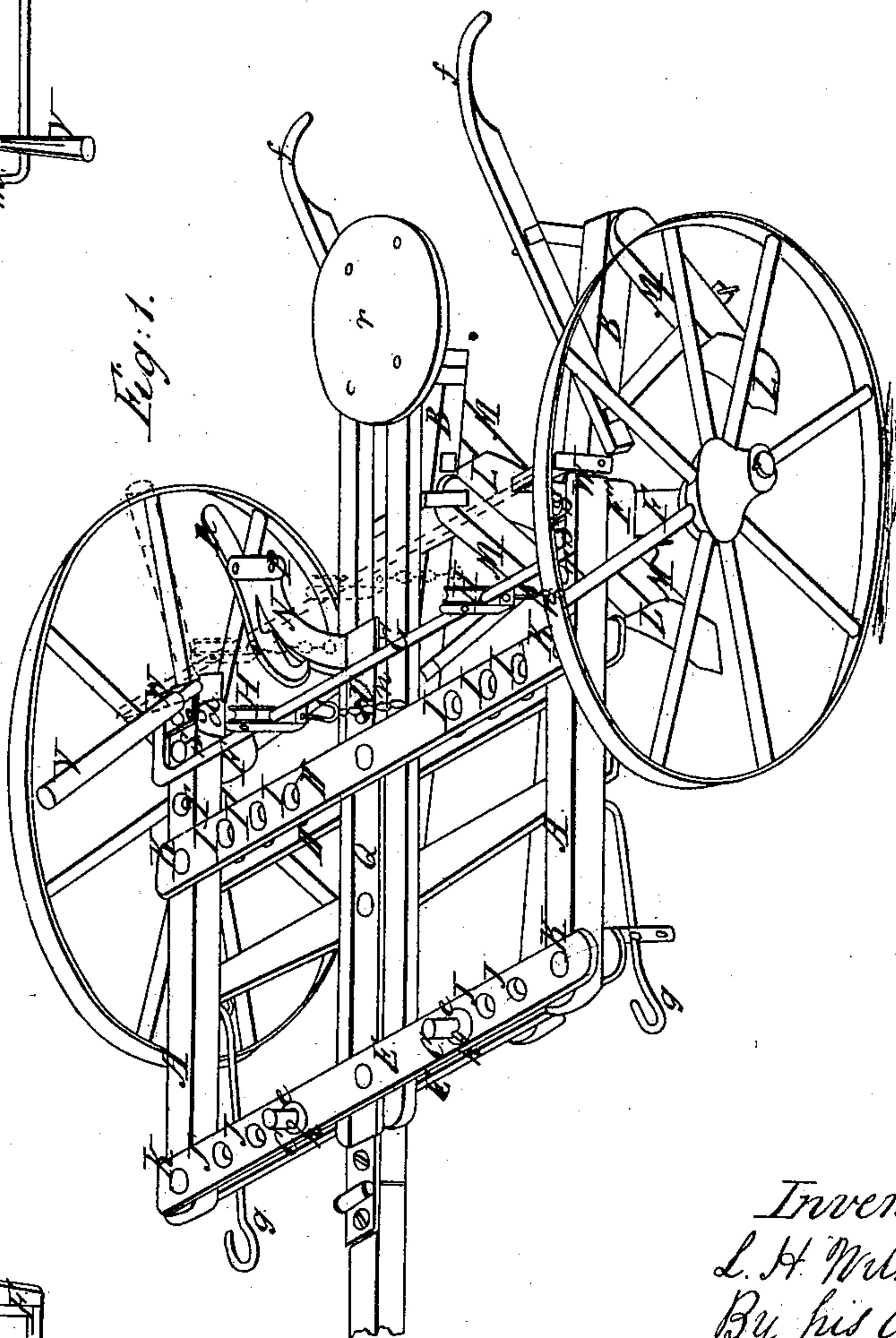
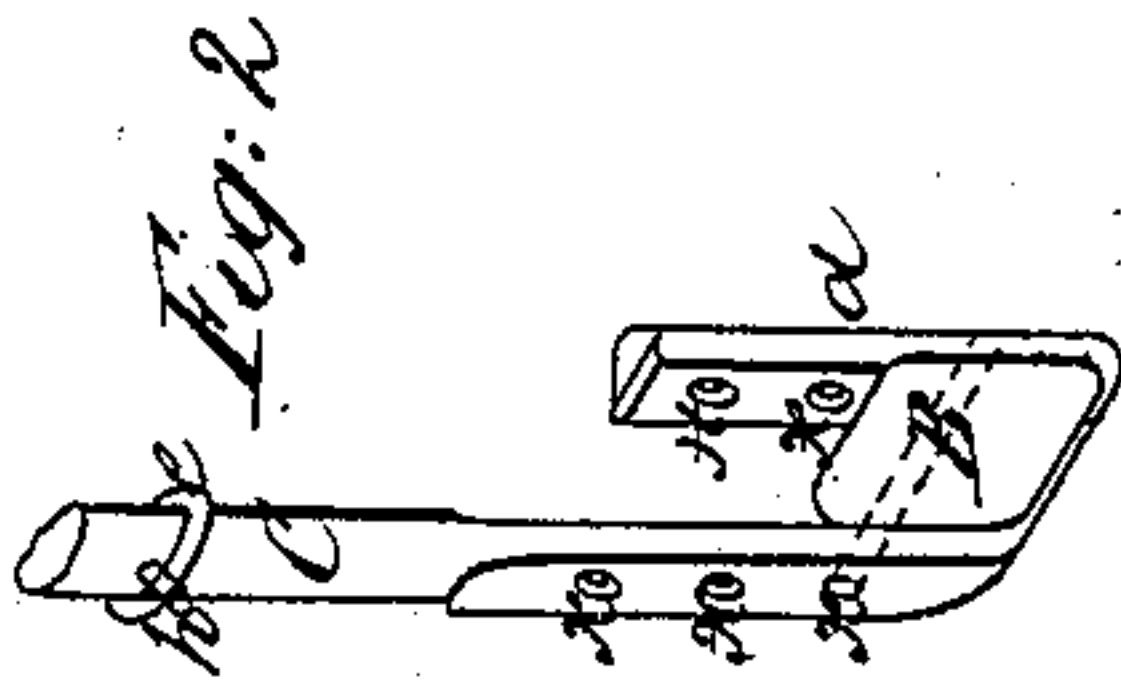
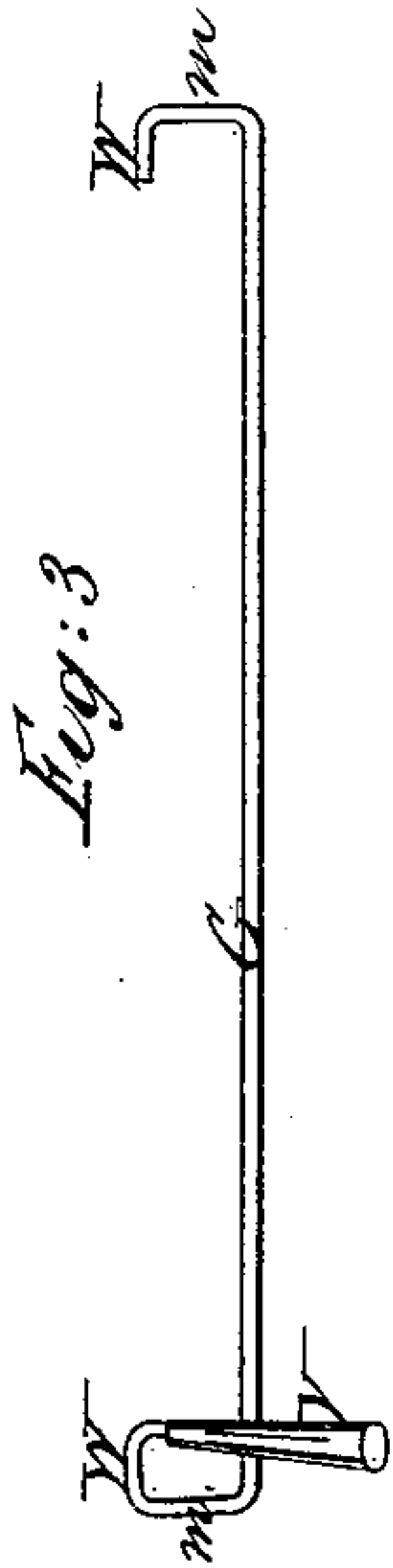


*L. H. Wilkinson*

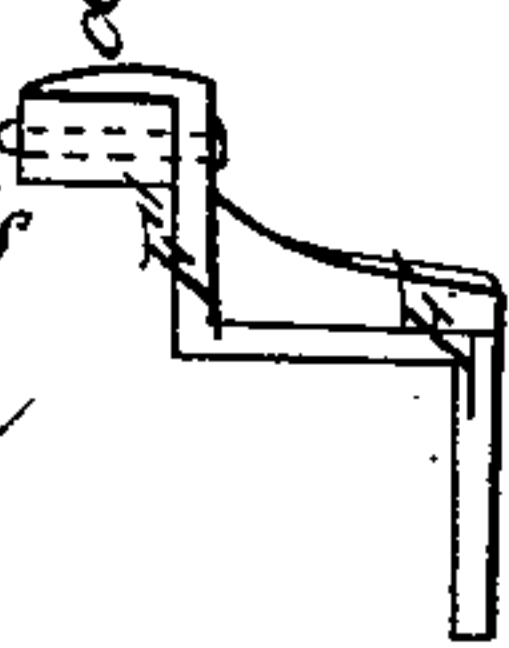
*Cultivator*

*N<sup>o</sup> 90,905.*

*Patented Jan. 1, 1869.*



*Fig: 4*



*Witnesses*  
*R. W. Towell*  
*M. Rice*

*Inventor*  
*L. H. Wilkinson*  
*By his Attorney*  
*G. L. Chapman*



# United States Patent Office.

L. H. WILKINSON, OF MICHIGAN CITY, INDIANA.

Letters Patent No. 90,905, dated June 1, 1869.

## IMPROVEMENT IN CULTIVATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom this may concern:

Be it known that I, L. H. WILKINSON, of Michigan City, in the county of La Porte, and State of Indiana, have invented an Improved Cultivator; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters marked thereon, in which—

Figure 1 is a perspective representation of my invention.

Figure 2, a representation of one of the loop-bolts which support the forward ends of the beams, removed from the frame of the cultivator.

Figure 3, a plan view of the rod which is used to raise and lower the shovels.

Figure 4, an elevation of one of the axle-tree arms, with the wheel removed.

The present invention relates to an improvement in that class of cultivators that run on wheels, and carry a frame that supports the working-devices; and

Its nature consists in the novel means used to raise and lower the shovels, and give them an easy lateral motion, and in supporting the forward ends of the beams with loop-bolts, so arranged as to give a side-draught, to counteract the pressure of the earth against the mould-board shovels, when they are carried toward the row to form hills, and, further, in the novel means provided for so changing the position of the beams from the front of the frame to a rear attachment, as to provide a walking-cultivator, and so arranging the frame as to be adjustable on the axle-tree arms, for the purpose of balancing it, when the shovel-beams are changed, either into a walking or riding-cultivator.

To enable others skilled in the art to make and use my invention, I have marked like parts, in the several figures, with like letters, and will now give a detailed description.

A A, fig. 1, represent a substantial frame, which is fastened together by cross-pieces E E, D D, and it is bolted fast to the axle-tree arms F F, at S S, two or more holes, T, being made through the frame, in front of said arms, for the purpose of adjusting it far enough back to balance, when the operator is to walk in the rear of the cultivator, and guide the shovels.

The peculiar form of the arms is shown at fig. 3, F' being the chair on which the frame A bears, and a the back of the chair, which bears against the inside of the frame, and prevents it from getting out of place.

To move the frame A back, all that is required is to remove the bolts S S from it, and put them through the holes T in front.

I do not claim to have originated the principle of balancing frames on axles, to conform to walking and riding-cultivators, but limit myself to the construction herein shown to accomplish this purpose.

The cross-pieces D E are fastened to the upper and lower side of the frame A, by means of bolts K K, and they have a series of holes, I J, made through them, to receive loop-bolts C C, which are put in either two of the holes, J, (according to the width of the row to be cultivated,) when the operator is to ride, and in the holes I, when he is to walk in the rear, and guide the shovels L, by means of handles f f.

Each of the loop-bolts C has a long shank, that is rounded at the upper end, and turns in the holes I, when the shovels L have a lateral motion, and a pin put through its upper end, to hold it in place, a washer, e, being put under the pin, to prevent it from wearing.

The opposite ends of the bolts are so turned up as to provide suitable loops to support the forward ends of the beams B B, a series of holes, x x, &c., being made through the loops, to receive the bolts which hold said beams in place.

It will be seen by this description, that the pivots U, on which the beams are placed at the inner sides of the line of draught.

This is done that the shovels L may be easily thrown inward to hill a row, and held in that position with little or no force.

The device for supporting and raising the shovels consists of an iron rod, G, figs. 2 and 4, which is so bent at the ends as to form short elbows m m and pivots W, and also a shank for securing the lever V, the elbows m operating as levers for raising the beams B B, and the pivots W fitting into sockets, or boxes, secured to the rear end of the frame A A.

The straight part of the rod supports sheave-blocks and pulleys H, the blocks supporting the chains, which are fastened to the beams B B, and used to raise and lower the shovels L, and the pulleys to roll on the rod, and thus permit the shovels to have an easy lateral motion, whether they run a greater or less depth in the ground.

A curved standard, N, fig. 1, is secured to the rear end of the tongue A, at U, and supports a latch, R, which is pivoted to a short strap, P, fastened to said standard, and has notches in its under edge, which lock over the rod G, and hold it in position, the lever V being used by the operator to put the rod in place.

The operation is so simple as to require no particular explanation, the whiffletrees being attached to the draught-rods g g, and the operator sitting on the seat r, when the beams B B are pivoted to the front of the cultivator, and walking in the rear, when they are pivoted to the cross pieces D D.

Having thus described my invention,

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

1. The rod G, in combination with the lever V,

sheave-blocks and pulleys H, beams B B, shovels L, standard N, and catch R, the whole being constructed and arranged substantially as and for the purpose set forth.

2. The combination of the loop-bolts C, beams B B, shovels L, and cross-pieces D E, the latter having a series of holes through them, for adjusting the beams, substantially as herein described.

3. The combination of the frame A A, cross-pieces D E, loop-bolts C, beams B B, shovels L, and axle-tree arms F, said arms being adjustable on the frame, and constructed as and for the purpose described.

L. H. WILKINSON.

Witnesses:

R. W. TOVELL,

M. RICE.