

(No Model.)

J. W. MALOY.  
WHEELBARROW.

No. 413,677.

Patented Oct. 29, 1889.

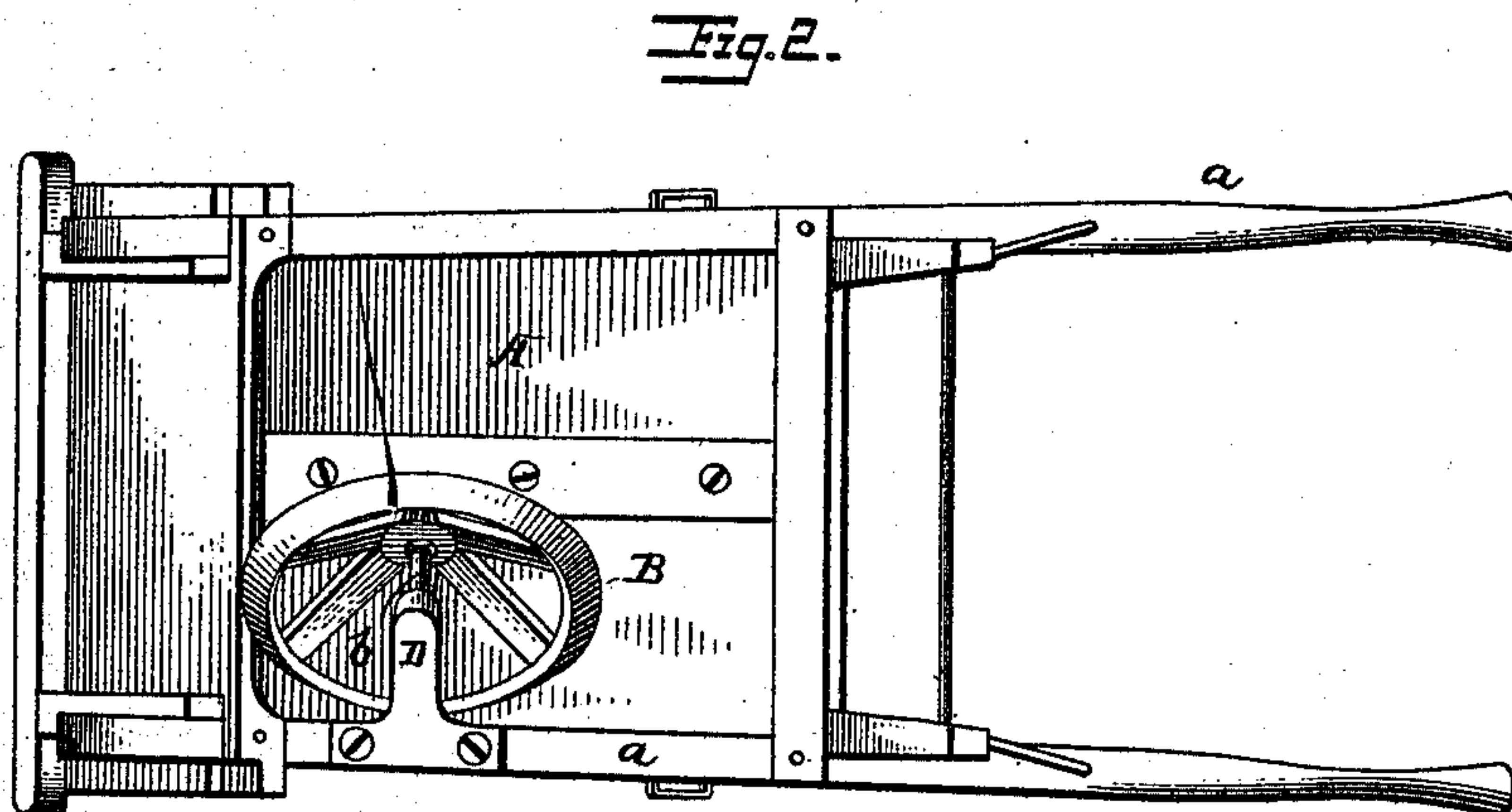
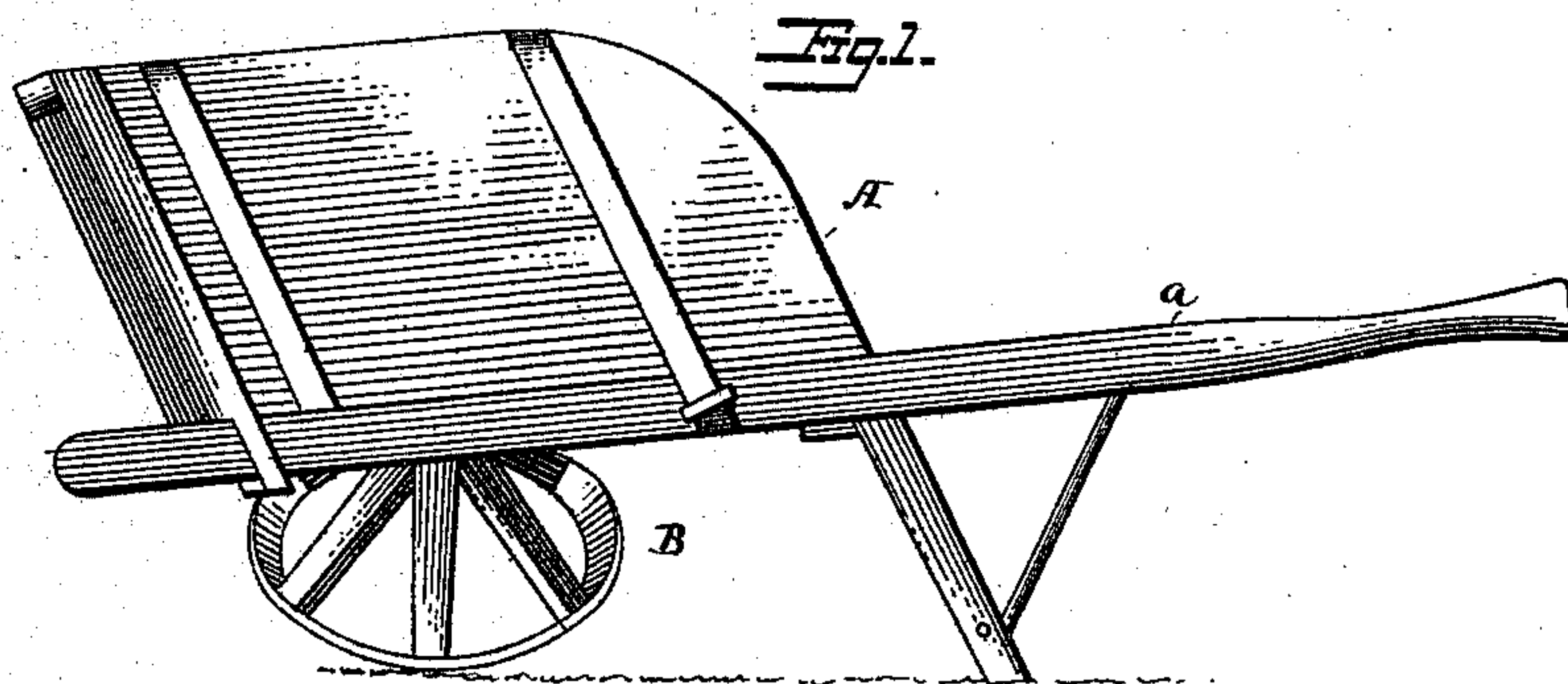


Fig. 3.

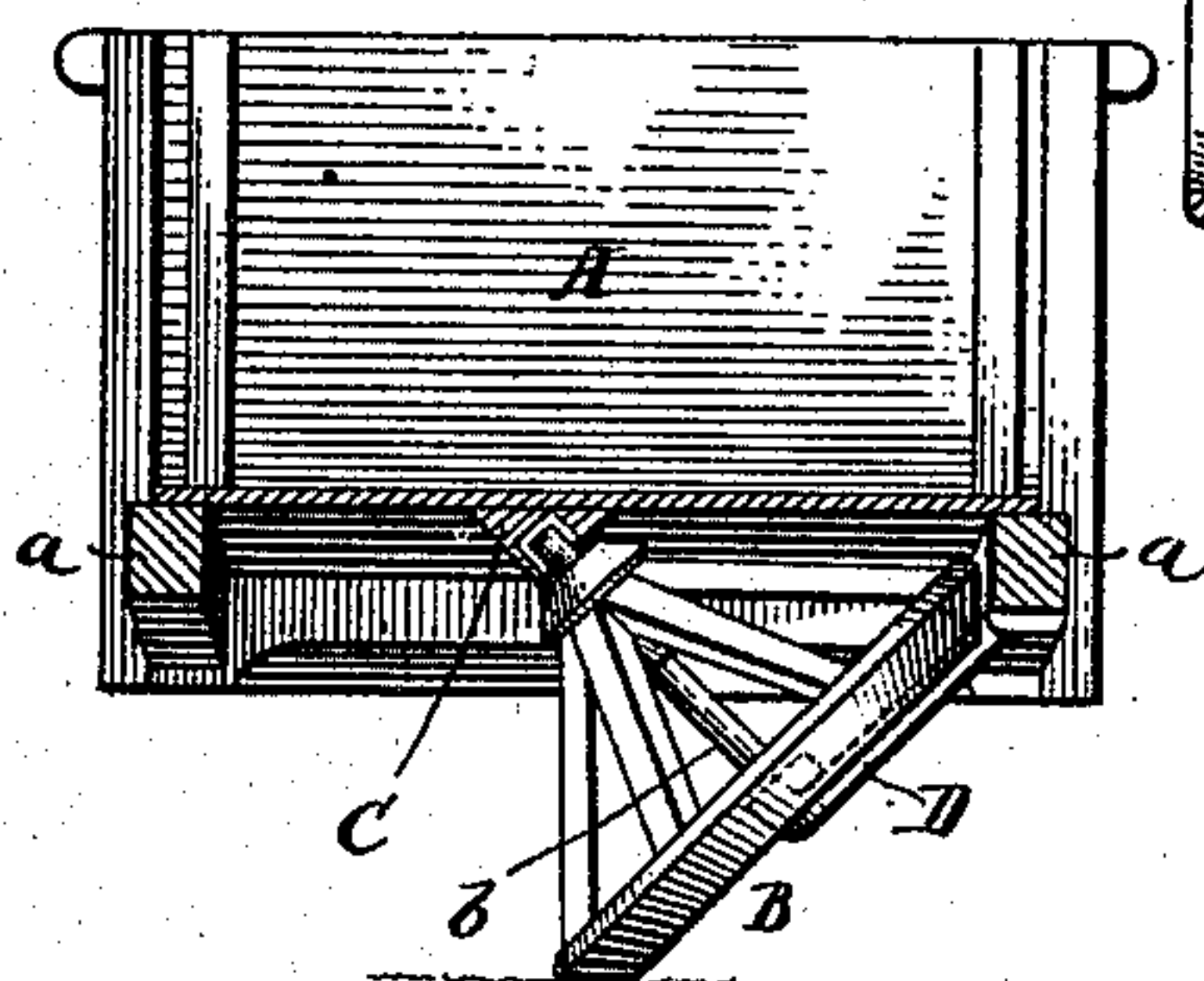


Fig. 4.

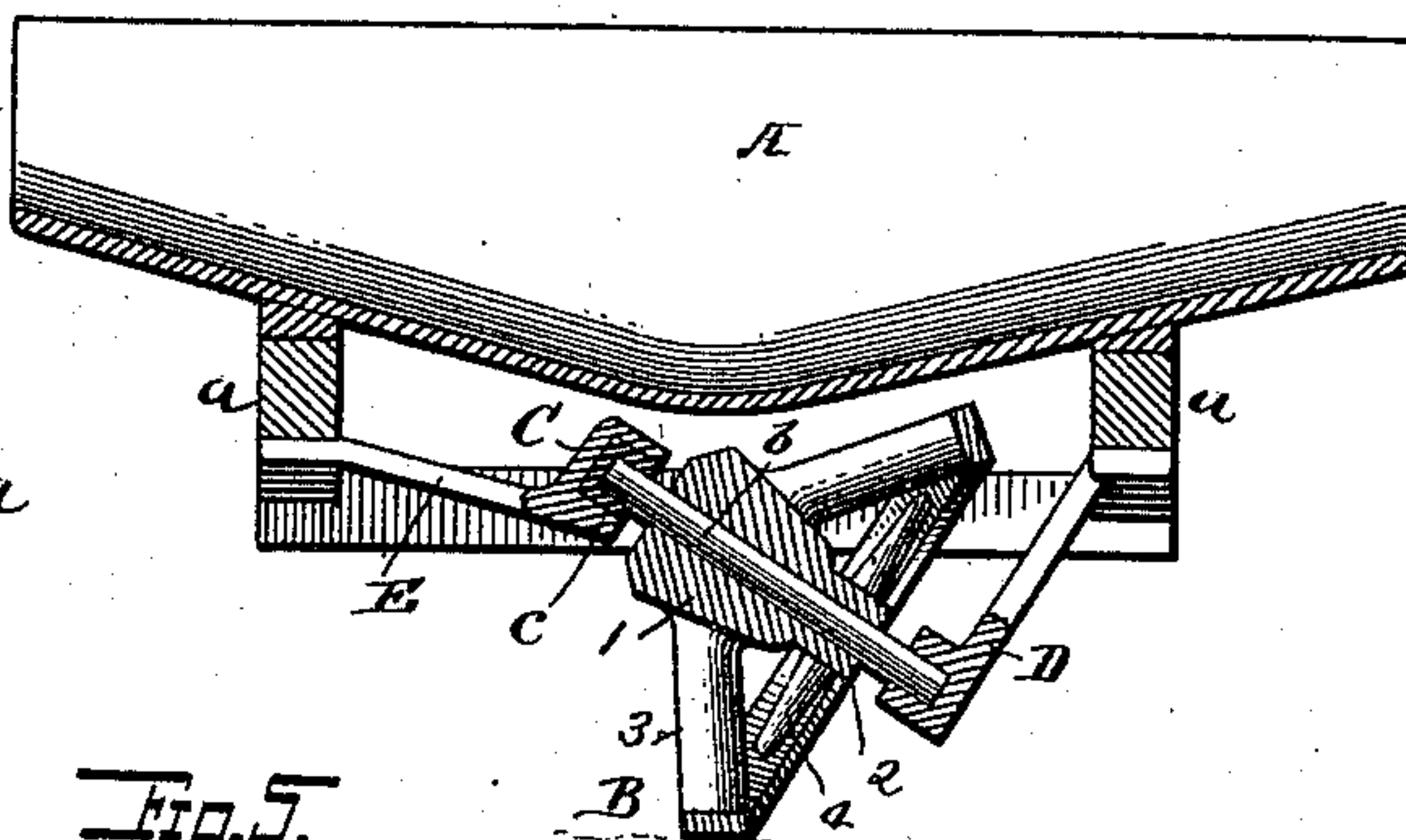
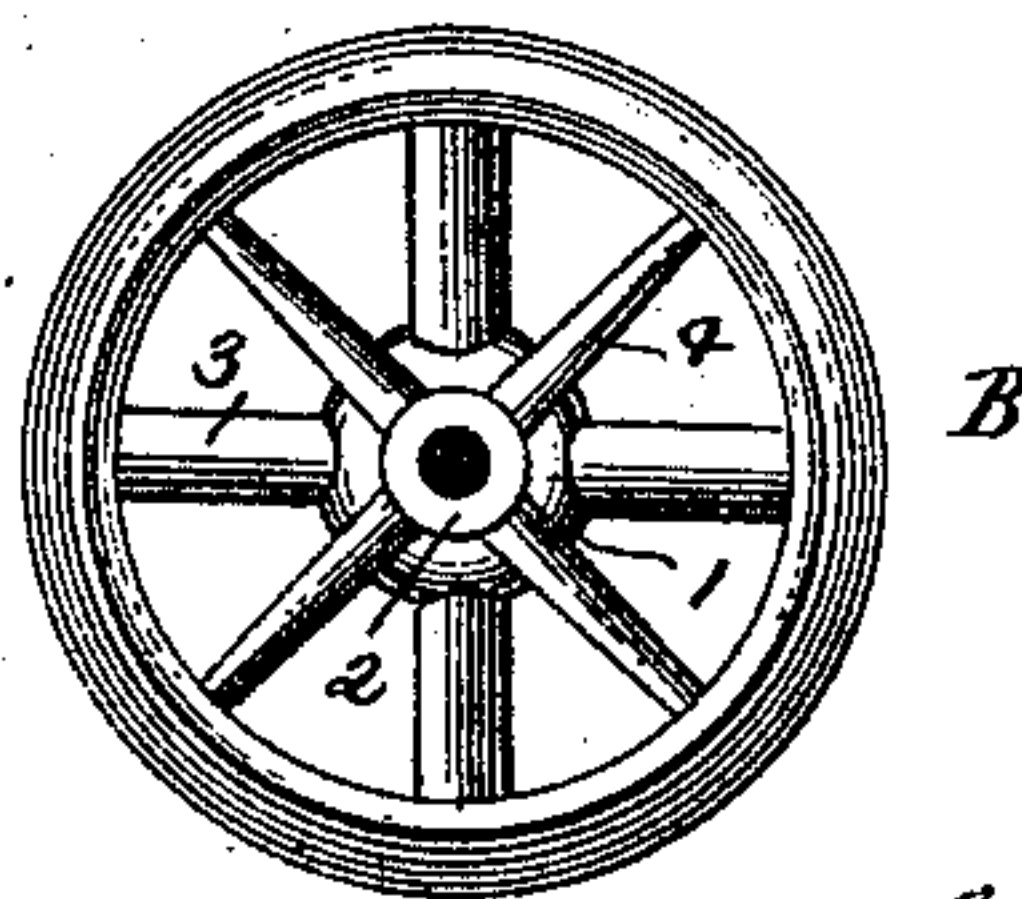


Fig. 5.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES W. MALOY, OF MARIETTA, GEORGIA.

## WHEELBARROW.

SPECIFICATION forming part of Letters Patent No. 413,677, dated October 29, 1889.

Application filed December 17, 1888. Serial No. 293,790. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES W. MALOY, a citizen of the United States, residing at Marietta, in the county of Cobb and State of Georgia, have invented certain new and useful Improvements in Wheelbarrows, of which the following is a specification.

This invention relates to wheelbarrows; and it consists in a vehicle of this class provided with a dished wheel having its axis arranged at an angle of about forty-five degrees to the horizon and mounted below the body of the barrow, so that its tread shall bear upon the ground below the central line thereof; and it also consists in a wheel of a certain novel construction adapted to be so used.

It is customary to locate the supporting-wheel of a wheelbarrow in front of the body thereof, while the handles extend from the opposite end. This construction makes it necessary that the operator should not only propel and guide the barrow and its load, but also lift and support a considerable part of the load while it is being propelled. It has been sought to overcome this objection by locating the supporting-wheel beneath the body of the barrow, so that it shall be below the center of gravity of the load, or thereabout, and thus reduce the operator's labor to that alone of propelling and guiding the load. But this last-referred-to construction is open to another objection, which is that unless a wheel of so small size as to impede the free running of the barrow is employed the body will be raised too high for practical purposes. By the use of my invention, however, all the objections which I have referred to are overcome, and I am enabled to mount a sufficiently large wheel beneath the body of the barrow without raising the latter higher than is desirable.

In the drawings, Figure 1 is a side view of a wheelbarrow having my invention applied thereto. Fig. 2 is a bottom view of the same. Fig. 3 is a transverse section. Fig. 4 is a transverse section of a somewhat different embodiment of my invention, and Fig. 5 is a detached face view of the wheel shown in Fig. 4.

A represents the body of the wheelbarrow, which may be of any preferred construction. Directly under the body, with that part of its tread which bears upon the ground on the

central longitudinal line of the body, is the wheel B, which is so dished that when the axis thereof is arranged at an angle of forty-five degrees to the horizon the inclined spokes, which are between the hub and wheel-rim where it bears on the ground, are vertical, while the upper spokes lie horizontal, or substantially so. The shaft or spindle *b*, upon or preferably with which the wheel B turns, is mounted at its upper end and in a socket in a block or bearing C, which in the construction shown in Figs. 1, 2, and 3 is secured in the under side of the body of the barrow. The opposite end of the shaft or spindle *b* is mounted in a seat provided therefor at the lower end of a bracket D, which projects downward and inward from the end of the sill-pieces *a* of the body A. Since there is an end as well as a transverse thrust upon the bearing C for the upper end of the shaft *b*, I provide the former with a cap-lining or bushing *c*, made of some hard anti-friction material, as Babbitt metal, and covering and receiving the wear from the end as well as from the circumferential exterior of the shaft. The bearing for the lower end of the shaft may be provided with a similar or with the ordinary cylindrical bushing or lining, although this is not so essential as the bushing at the opposite end, since there is less wear and friction in the lower bearing. The lining *c* is easily detachable, and can hence be renewed without difficulty when occasion requires.

The wheel B, when mounted as shown, is arranged as nearly as practicable directly below the center of gravity of the barrow when loaded, which makes it possible for the operator to move a much larger load than he can when the wheel is located, as is customary, in front of the body A, as has been hereinbefore set forth. Further, the employment of a dished wheel, such as shown, having its axis inclined, enables the use of a wheel of large size or circumference without raising the body higher than is desirable, and by being arranged underneath the body and entirely within the outside lines thereof makes a barrow which is shorter than those in common use, and one which can be more readily turned.

In Figs. 4 and 5 I have shown a wheel having certain novel features of construction and possessing great strength. The wheel therein



shown has the hub 1 extended upon the spindle *b* to form a portion 2, arranged in the plane of the rim of the wheel. From this portion 2 of the hub of the wheel project a series  
5 of radial spokes 4, while the series of inclined spokes 3 extend from the portion 1 of the hub to the wheel-rim. This construction gives a direct support for the wheel-rim between it and the hub or its shaft or spindle, and adds  
10 to its strength and rigidity. It will of course be understood that the two parts 1 and 2 of the hub need not be integral, though they are so shown.

In Fig. 4 the support C for the upper end  
15 of the shaft or spindle *b* is shown as carried by an arm or bracket E, carried by one of the sills of the barrow.

Without limiting myself to the precise construction and arrangements of parts shown, I  
20 claim—

1. A wheelbarrow having a supporting  
dished wheel turning upon an inclined axle  
and mounted beneath the body of the barrow, with the lower part of the rim of the  
25 wheel central vertically with said body, substantially as set forth.

2. A wheelbarrow having a supporting  
dished wheel mounted upon an inclined spin-

dle or shaft, a bearing for the upper end of the shaft arranged to bring the ground-bearing of the wheel substantially centrally beneath the barrow-body, and a bearing for the opposite end of the said shaft carried by an arm or bracket projecting from a sill of the barrow, substantially as set forth. 35

3. A dished supporting-wheel adapted for a wheelbarrow having a hub, a rim, and a series of straight radial and series of inclined spokes between the hub and rim, substantially as set forth. 40

4. A dished supporting-wheel adapted to be used with a wheelbarrow having a spindle, a hub 1 2, mounted thereon, a series of inclined spokes extending between the part 1 of the hub and the wheel-rim, and a series of direct  
45 radial spokes extending between the part 2 of the hub and the wheel-rim, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two  
50 scribing witnesses.

JAMES W. MALOY.

Witnesses:

B. R. STRONG,  
A. Y. LEAKE.