

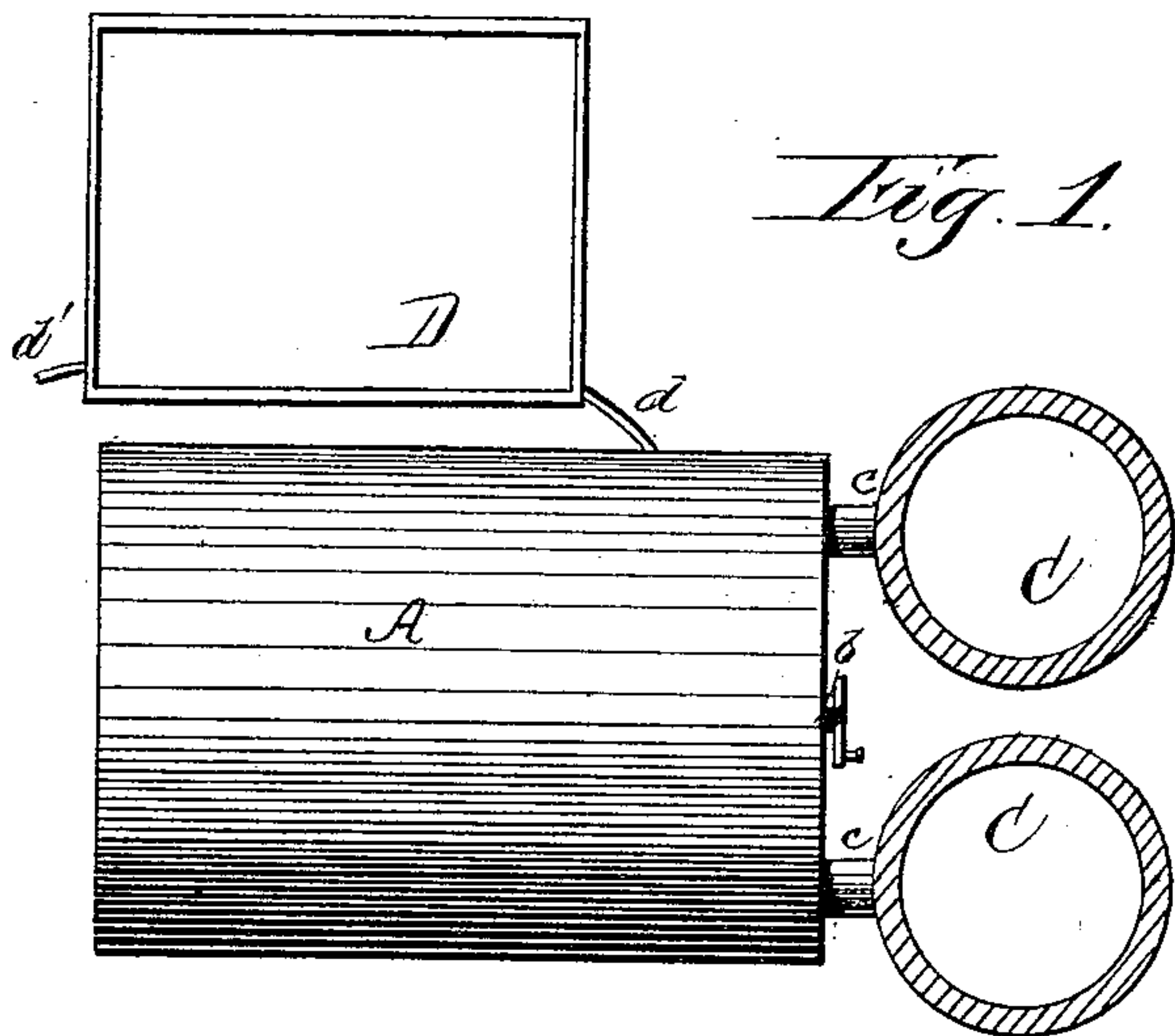
(No Model.)

J. L. WALKER.

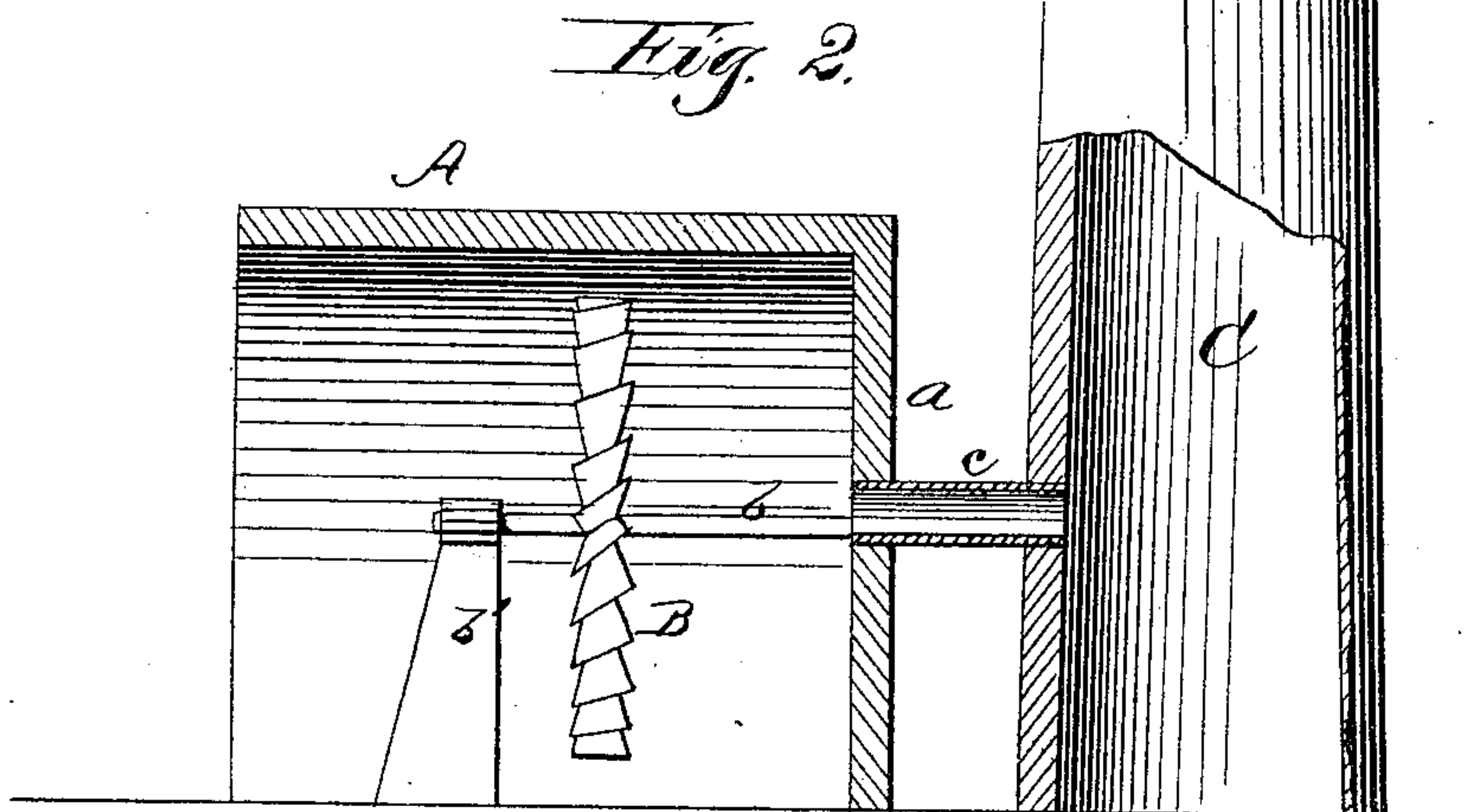
WIND ENGINE.

No. 273,920.

Patented Mar. 13, 1883.



*Fig. 1.*



*Fig. 2.*

*Witnesses:*  
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*per*  
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# UNITED STATES PATENT OFFICE.

JOHN L. WALKER, OF BRAIDWOOD, ILLINOIS.

## WIND-ENGINE.

SPECIFICATION forming part of Letters Patent No. 273,920, dated March 13, 1883.

Application filed September 16, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN L. WALKER, a subject of Great Britain, but a resident of the United States of America, residing at Braidwood, in the county of Will and State of Illinois, have invented certain Improvements in Wind-Engines, of which the following is a full, clear, and exact description.

This invention relates to wind-engines; and it consists in a wind-wheel provided with suitable cranks or connections for running machinery, and inclosed in a casing or shell connected by pipes or tubes to one or more chimneys of great height, whereby a strong current of air is induced through the fan-case at all times, substantially as hereinafter more fully explained.

In order to enable others skilled in the art to avail themselves of the benefits of my invention, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a plan view of my invention, and Fig. 2 is a central vertical section of the same. A represents a shell or arch, of brick or other suitable material, which is open at its front end for the free admission of air, and closed at its rear end by a wall, *a*.

B is a wind-wheel of any of the well-known forms, and mounted upon a shaft, *b*, journaled in the wall *a* at its rear end, and in a post or casting, *b'*, at its front end. The rear end of the shaft *b* extends through the wall *a* and is provided with a crank for attachment to a pump or any machinery which it is desired to actuate.

In rear of the casing A and connected to it by pipes or tubes *c* is one or more chimneys, C C, which are constructed of great height in order to induce a powerful current of air. It is well known that chimneys have always an upward draft, and as this draft increases in strength with the height of the flue any desired strength of current may be produced by them. Any number of chimneys C C may be

used; but in the drawings I have only shown two, as that will usually be all that is necessary.

The drawings show beside the casing A a water-tank, D, having an inlet-pipe, *d*, and an overflow-pipe, *d'*, to show its application to any kind of farm-work. The tubes *c c* may, if desired, be closed by a sliding valve in order to control the speed of the wheel B and stop it altogether when not required.

This device makes a very simple wind-engine suitable for driving any kind of machinery, and it may be constructed very cheaply and used in any place or any weather, as the running is not dependent upon the wind, but the air-currents are induced at all times by the chimneys. The casing or arch A entirely incloses the wheel B and confines the current of air so as to utilize it all.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wind-wheel inclosed in an arch or shell connected to one or more chimneys or flues of great height, substantially as shown and described.

2. The combination, in a wind-engine, of the wheel B, with a casing or shell open at one end and closed at the other, said shell being suitably connected to one or more chimneys or flues, substantially as shown and described.

3. The combination, in a wind-engine, of the wind-wheel B, having shaft *b*, and crank *b''*, with the shell A open at one end and connected at the other by pipes or tubes *c* to a chimney or chimneys, C C, whereby a strong current of air is at all times induced through the fan or wheel case, substantially as herein shown and described.

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

JOHN L. WALKER.

Witnesses:

M. DANDO,  
JAMES B. SCOTT.