

(No Model.)

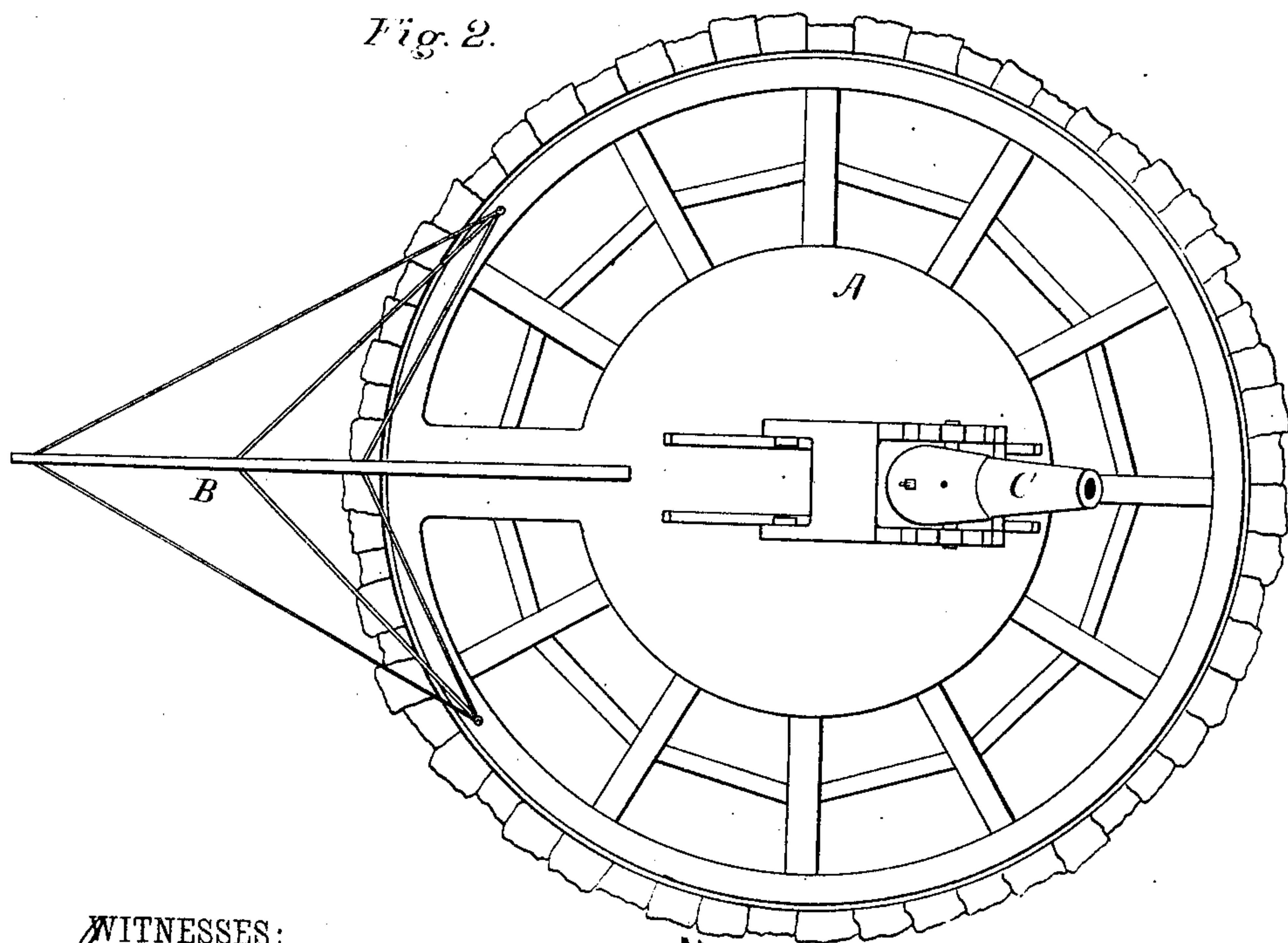
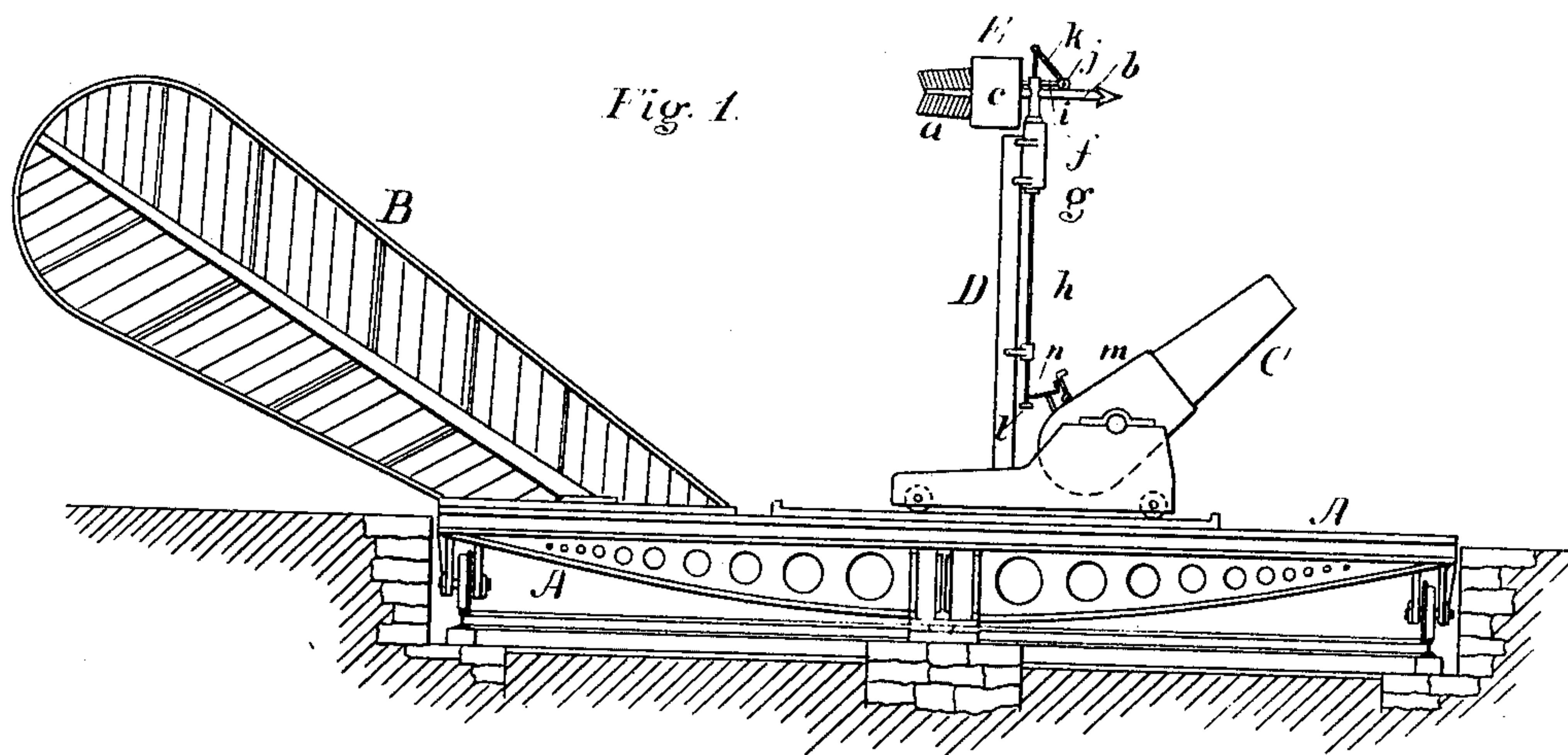
2 Sheets—Sheet 1.

W. S. BLUNT.

AUTOMATIC TORNADO BREAKER.

No. 290,966.

Patented Dec. 25, 1883.



WITNESSES:

William W. Hucks
James S. Harvey

William S. Blunt

INVENTOR

BY A. L. L. L. L. L.

ATTORNEY

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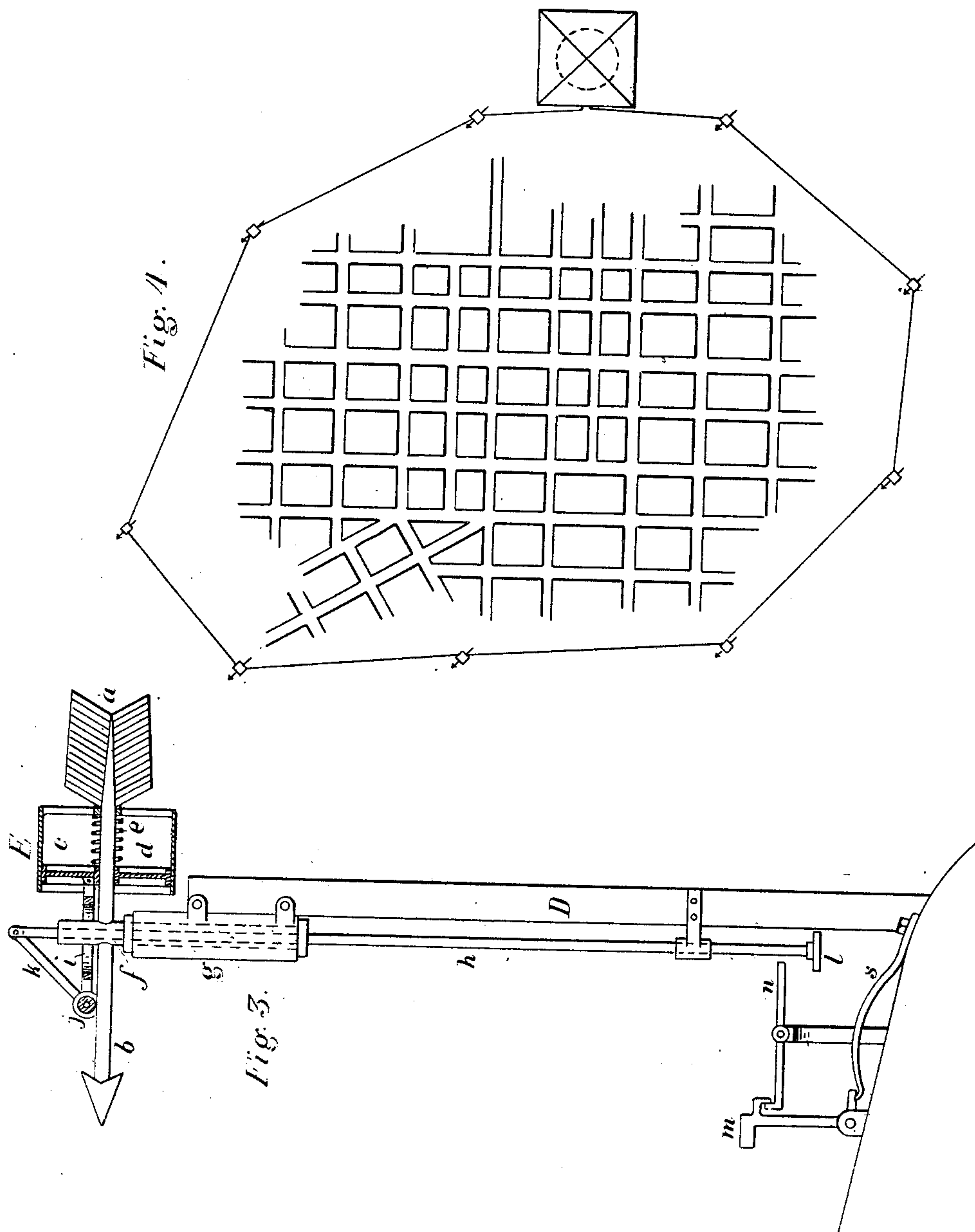
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WITNESSES:
William V. H. Hicks
James S. Harvey

William S. Blunt INVENTOR

BY *A. Sidney Brown*

ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM S. BLUNT, OF NEW YORK, N. Y.

AUTOMATIC TORNADO-BREAKER.

SPECIFICATION forming part of Letters Patent No. 290,966, dated December 25, 1883.

Application filed November 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. BLUNT, of the city, county, and State of New York, have invented an Automatic Tornado-Breaker; and I do hereby declare that the following is a full, clear, and correct description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a sectional elevation of my invention. Fig. 2 is a top view of the same. Fig. 3 is a side elevation of the means of communication between the wind-pressure gage and the trigger of the cannon. Fig. 4 is a plan of a town or village surrounded by the automatic tornado-breaker and the exploding magazine or stationary mortar.

In the drawings like parts of the invention are indicated by similar letters of reference.

The nature of the present invention relates to improvements, as more fully hereinafter set forth, in the construction of an automatic tornado-breaker, the object of the invention being the production of an automatic apparatus by which the rotary and ascending spiral character of a tornado or wind-storm may be broken, and destruction of property and loss of life of frequent occurrence from the sudden approach of tornadoes or wind-storms will be averted.

To enable those skilled in the arts to make and use my invention, I will describe the same.

A shows a turn-table, capable of being easily revolved by means of a large weather-vane, B, attached to it so that with each or any change of the wind the table A will readily be turned. Upon this table A, I propose to mount a cannon or heavy piece of ordnance, C. The gun or piece of ordnance C should be placed at an elevation of about forty-five degrees, so as to be capable of producing the greatest atmospheric shock at the critical moment, and also to insure the safety from accident to the people in its neighborhood. It is intended that this cannon or piece of ordnance, revolving as it will with the turn-table A, shall always be directed toward the greatest force of the wind.

D shows a post or standard, affixed either to the turn-table A or cannon C, upon the top of which is placed a wind-pressure gage, E,

combined with a weather-vane, *a*, upon the shaft *b* of which is firmly fastened a hollow cylinder, *c*. A piston, *d*, fits easily into this cylinder *c*, and slides on the shaft *b* of the vane *a*. This piston *d* is pressed toward one end of the cylinder *c* by means of an adjustable spiral spring, *e*, within the cylinder *c*. The shaft *b* of the vane *a* is firmly fastened to a hollow sleeve, *f*, having a bearing in and upon a proper support at the top of the post or standard D. This sleeve *f* turns freely in a support, *g*, and thus forms a pivot upon which the vane *a* turns. *h* is a rod passing through the sleeve *f*, and extending a short distance above it. *i* shows a slotted connection, upon one end of which is the roller *j*, moving on the shaft *b*. This slotted connection *i* connects, by means of a link, *k*, the piston *d* and rod *h*.

l is a circular disk, secured to the lower end of the rod *h*, and *m* is the trigger of the cannon, held up by means of a tripping-lever, *n*.

Such being the construction, the operation may be thus set forth: It will be seen that the cannon or heavy piece of ordnance will be directed toward the greatest force of the wind, and that it is intended, when the wind exceeds a given rate—say, seventy-five miles an hour—the cannon or heavy piece of ordnance shall be discharged. This discharge of the cannon may be accomplished as follows: The vane *a* is always pointed toward the wind, and the piston *d* will be pressed into the cylinder *c* against the spring *e*, thus the lower end of the link *k* is drawn nearer to the center of the support of the vane, and the rod *h* is raised. The circular disk *l* is so secured to the rod *h* that the moment the pressure of the wind becomes dangerously great the disk is brought into contact with the tripping-lever *n*, releasing the trigger *m*, which is thrown upon the priming with sufficient force by the spring *s* to produce a discharge of the cannon C.

In Fig. 4 is shown a plan of a town or village surrounded by any desired number of the tornado-breakers. These are intended to be used with an isolated magazine or large stationary mortar, and by surrounding the town or village with them or wind-gages connected with the magazine or with the rotating cannon an explosion can be caused at the moment of greatest danger from violent wind, no mat-

ter from what direction the storm or tornado may approach.

While I have shown mechanical means for exploding the cannon or heavy piece of ordnance at the proper time, I am aware that electricity may be availed of, the completion of the electric circuit being effected by (as in the case of the mechanical device employed) the wind-gage.

10 Having now set forth my invention, I claim as new—

In an automatic tornado-breaker, the com-

bination of the following elements: a revolving turn-table, A, operated by a weather-vane, B, a cannon or heavy piece of ordnance, C, 15 and suitable mechanical devices connecting the cannon or heavy piece of ordnance C with a wind-pressure gage, E, by which said cannon or heavy piece of ordnance is discharged, substantially as and for the purpose specified. 20

WILLIAM S. BLUNT.

In presence of—

E. MACDOUGALL HAWKES,
WILLIAM V. H. HICKS.