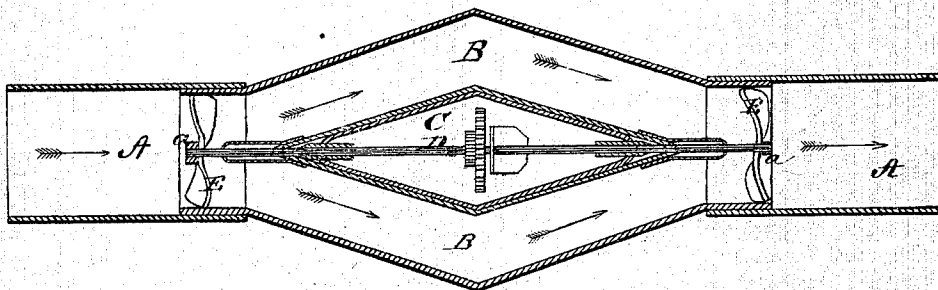


E. BANTZ.

Means of Creating Artificial Currents.

No. 139,854.

Patented June 17, 1873.



Witness:

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UNITED STATES PATENT OFFICE.

EDWARD BANTZ, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN MEANS FOR CREATING ARTIFICIAL CURRENTS.

Specification forming part of Letters Patent No. 139,854, dated June 17, 1873; application filed October 31, 1872.

To all whom it may concern:

Be it known that I, EDWARD BANTZ, of Baltimore, in the county of Baltimore and in the State of Maryland, have invented certain new and useful Improvements in Apparatus for Creating Currents in Water; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of an apparatus for creating currents in water, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a horizontal section of my apparatus.

A represents a tunnel of any suitable dimensions, divided at any desired point into two branch tunnels, B, which may be substantially in the form shown, and then again connected to form the main tunnel. The branch tunnels or sewers B B should each be half segments of the main tunnel or sewer, and a space, C, left between them. D represents a shaft running lengthwise between the two branch tunnels, and its ends entering the main tunnel at both ends of the branch tunnels, where said ends of the shaft are supported by one or more bars or supports *a*. Upon each end of the shaft D is placed a screw-wheel or propeller-wheel, E, which should be of a little less diameter than that of the main tunnel. The shaft D with its wheels E E is

revolved by any suitable power connected with the center of the shaft by any suitable and convenient means.

This apparatus is designed for use wherever an artificial current of water is needed—for instance, in harbors or basins where the water, especially during the summer months, becomes impure. Then by digging a tunnel or sewer connecting the inner end of such harbor or basin with the stream or river, and at a suitable point in said tunnel or sewer form the branch tunnels and locate the shaft and wheels, a current may be created and maintained throughout the entire basin or harbor which will effectually prevent any offensive odors arising from the water, and keep it comparatively pure.

The size of the tunnel depends upon the volume of water desired to be passed through in a given time.

The same apparatus may be used with advantage in ventilating public buildings, a current of air in that case being created instead of a current in water.

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

The tunnel or sewer A with the branches B B, in combination with the shaft D with wheels E E, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of October, 1872.

E. BANTZ.

Witnesses:

C. L. EVERT,
JOHN SMITH.