C. GOODWIN.

AIR CURRENT EQUALIZER.

APPLICATION FILED JULY 13, 1912.

1,053,025.

Patented Feb. 11, 1913.

2 SHEETS—SHEET 1.

Fig. 1

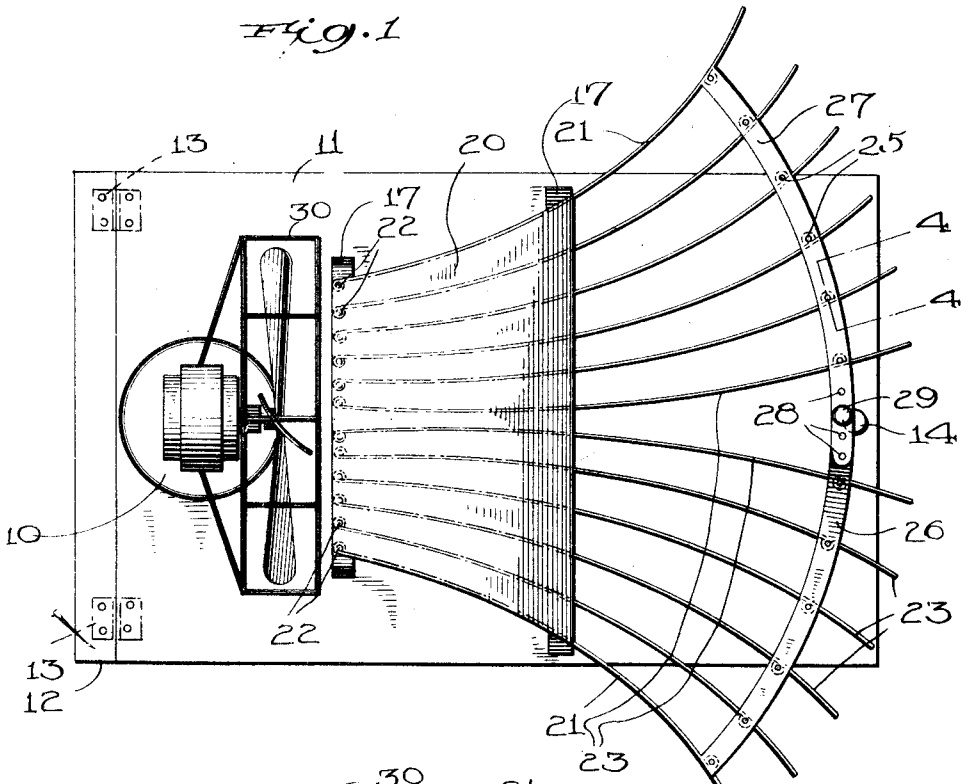
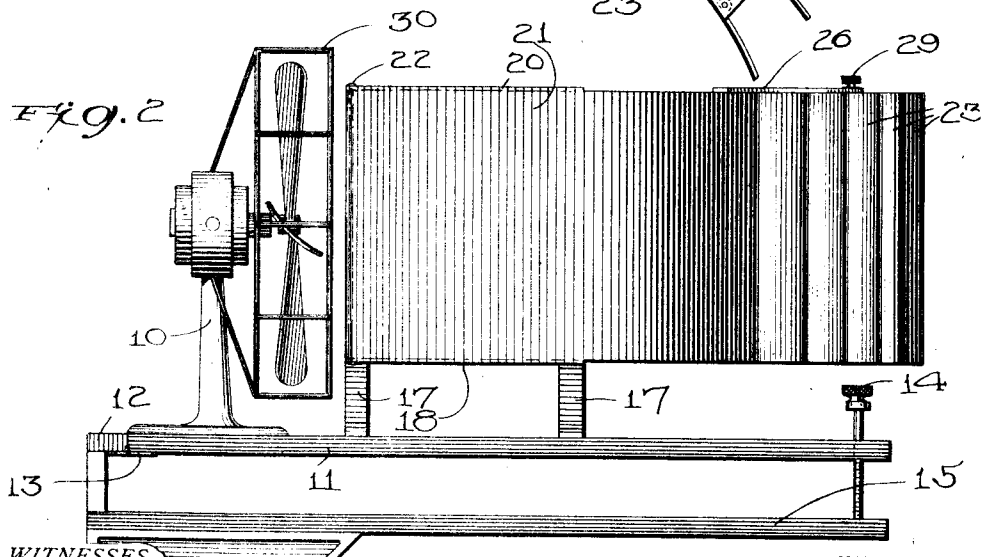


Fig. 2



WITNESSES

John Lee

Ross J. Woodward

INVENTOR

Charles Goodwin.

By E. G. Siggers, his Attorney

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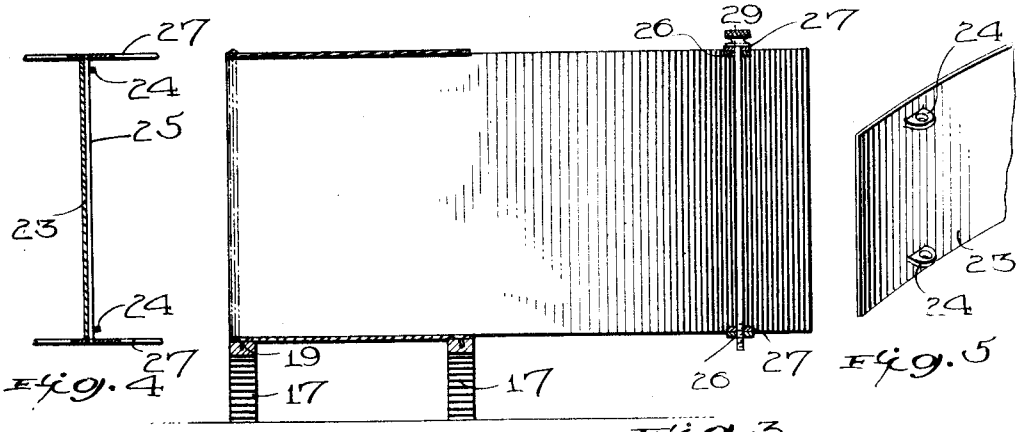

Fig. 4. Fig. 3. Fig. 5.

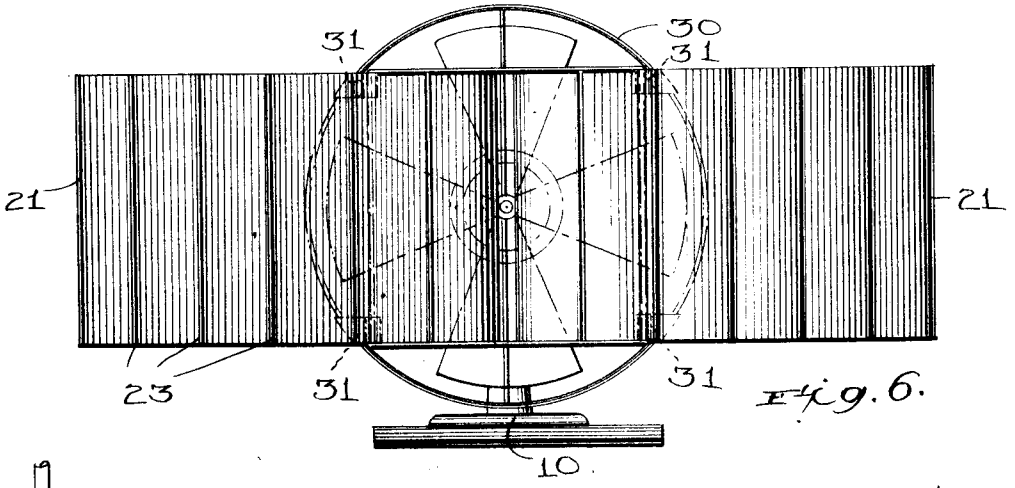

Fig. 6.

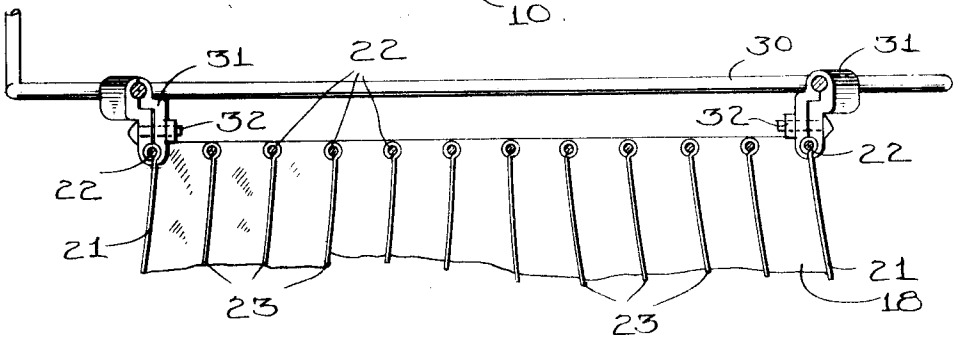

Fig. 7.

WITNESSES

INVENTOR

Charles Goodwin

By E. E. Groomans his Attorney

UNITED STATES PATENT OFFICE.

CHARLES GOODWIN, OF EAST MOLINE, ILLINOIS.

AIR-CURRENT EQUALIZER.

1,053,025. Specification of Letters Patent. Patented Feb. 11, 1913.

Application filed July 13, 1912. Serial No. 709,264.

To all whom it may concern:

Be it known that I, CHARLES GOODWIN, citizen of the United States, residing at East Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Air-Current Equalizers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a fan attachment and the principal object of the invention is to provide an attachment by means of which the air current created by a fan may be guided and thus distributed over a relatively great area of space.

Another object of the invention is to so construct the invention that the guiding blades may be adjusted, thus regulating the area over which the guiding blades are spread.

Another object of the invention is to so mount the guiding fan and guiding device that the vertical angle of the air current may be regulated.

Another object of the invention is to provide a device of the character described which may be removably connected with the frame guarding the fan blades so that the guarding device may be directly connected with a fan, thus permitting the device to be used in connection with what is known as an oscillating fan.

In the accompanying drawings:—Figure 1 is a top plan view of the device showing the fan in position. Fig. 2 is a side elevation. Fig. 3 is a longitudinal sectional view through the device. Fig. 4 is a section along the line 4—4, of Fig. 1. Fig. 5 is a perspective view of the outer end portion of one of the guiding blades. Fig. 6 is a front elevation of the guiding device, which is intended to be connected with the guard frame of a fan. Fig. 7 is a fragmentary sectional view showing the manner of connecting the guiding device with the fan guard.

Referring to the accompanying drawings and particularly to Figs. 1 through 5 it will be seen that this invention is used in connection with a fan 10 of the rotary type generally used and which is mounted upon a platform 11 having one end hinged to a support 12 by means of the hinges 13 and its free end adjustably supported by means of a set screw 14. The support 12 is carried by a base-board 15 mounted upon brackets 16 and the end of the set screw 14 rests upon the outer end of the base-board 15. This set screw 14 holds the platform 11 in spaced relation to the base-board and it will thus be seen that by turning the set screw that the angle of the platform will be adjusted, thus regulating the vertical incline of the fan and guiding device, which are mounted upon the platform.

The guiding device is positioned in front of the fan and is supported by means of the supports 17. A bottom plate 18 is secured to the supports 17 by means of the rivets 19 and the upper plate 20 is supported above the bottom plate 18 by means of the side strips 21 which are of greater length than the upper and lower plates. Vertical rods 22 connect the inner end portions of the plates 18 and 20, the inner ends of the side strips 21 being wrapped about the end rods 22 and the intermediate rods serving as pivot pins for the intermediate strips 23.

The side strips 21 and intermediate strips 23 are curved as shown in Fig. 1 and are preferably formed from resilient material although if desired only the end strips may be formed of resilient material. Each of the strips is provided adjacent its end with vertically alined perforated ears 24 through which pins 25 are passed in order to connect the strips with the curved braces 26 and 27. If desired braces similar to 26 and 27 may be placed at the lower edges of the strips 21 and 23 in order to better brace the strips. The ends of the braces 26 and 27 have their inner ends overlapped and provided with openings 28 so that a securing pin 29 may be passed through the openings, thus adjustably connecting the braces together. It will thus be seen that by moving this pin 29 from one set of openings to another that the area covered by the curved guiding strips may be increased or diminished as desired. When using this fan, the fan is mounted upon the inner end of the platform and the guiding device set up in front of it so that when the fan is turned on the air current will be driven through the guiding device and out between the guiding strips. These guiding strips divide the air current into a number of parts and spread the current so that it will cover a great deal larger area than would be the case if the devices were omitted. If desired to increase or diminish the area covered, the pin 29 may be removed and the central strips

drawn closer together this being permitted due to the fact that the end strips at least are resilient. The intermediate strips are pivotally mounted in order to permit them to have the desired movement. If it is desired to raise or lower the air current the set screw 14 may be rotated, thus elevating or depressing the platform and thereby regulating the incline of the fan and guiding device.

In Figs. 6 and 7 there has been shown a device in which the current regulator is constructed similar to the one shown in the remaining figures with the exception of the fact that the supports 17 are omitted. This device is connected with the guard 30 of the fan by means of the clamps 31. Each of these clamps is formed from two sections which are adjustably connected with the guard and end rods thereby securely connecting the current regulator with the fan. It will thus be seen that this type of regulator may be connected with a fan of the stationary type or with a fan provided with any suitable oscillating mechanism.

Having thus described the invention what is claimed as new, is:—

1. A device of the character described comprising a base-board, a supporting bracket carried by said base-board, a platform pivotally connected with said bracket, adjustable supporting means for the free end of said platform for holding the same in spaced relation to said base-board, an air current separator mounted upon said platform, said separator comprising a body portion, and a plurality of curved separating strips passing through said housing and extending from the outer end of the housing in diverging relation.

2. A current separator comprising a body portion having upper and lower plates, side strips connecting said upper and lower plates and extending in diverging relation, supports carried by said lower plate, pivot pins positioned between the inner end portions of said plates, guiding strips pivotally mounted upon pivot pins and extending from the same in diverging relation, and bracing strips connecting the outer end portions of said strips.

3. A current divider comprising a body portion, the side walls of said body portion being extended to form resilient side strips, guiding strips pivotally mounted in said body portion and extending in diverging relation, bracing strips connecting the outer end portions of said guiding strips, and means for adjustably connecting the inner end portions of said bracing strips.

4. A current divider comprising a body portion having its side walls continued to form side strips, guiding strips pivotally mounted in said body portion and extending therefrom in diverging relation between said side strips, perforated ears at the outer end portions of said guiding strips, bracing strips above and below said guiding strips, securing pins passing through said bracing strips and through said perforated ears, and a securing pin passing through the overlapped end portions of said bracing strips to removably connect the same.

5. An air current divider comprising a body portion, guiding strips extending through said body portion and beyond the same in diverging relation, means for adjustably connecting the outer end portions of said guiding strips, and means for connecting said current divider with the guard of a fan.

6. A current divider comprising a body portion, guiding strips passing through said body portion and beyond the same in diverging relation, reinforcing rods at the inner ends of said guiding strips, and clamps to engage the guard frame of a fan and certain of said reinforcing rods whereby said current dividing device may be removably connected with a fan.

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

CHARLES GOODWIN.

Witnesses:

SUE A. MCPAKE,

FRED H. RAILSBACK.