March 20, 1928. 1,663,165

A. J. HILL ET AL

ADVERTISING DEVICE

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Fig. 3.

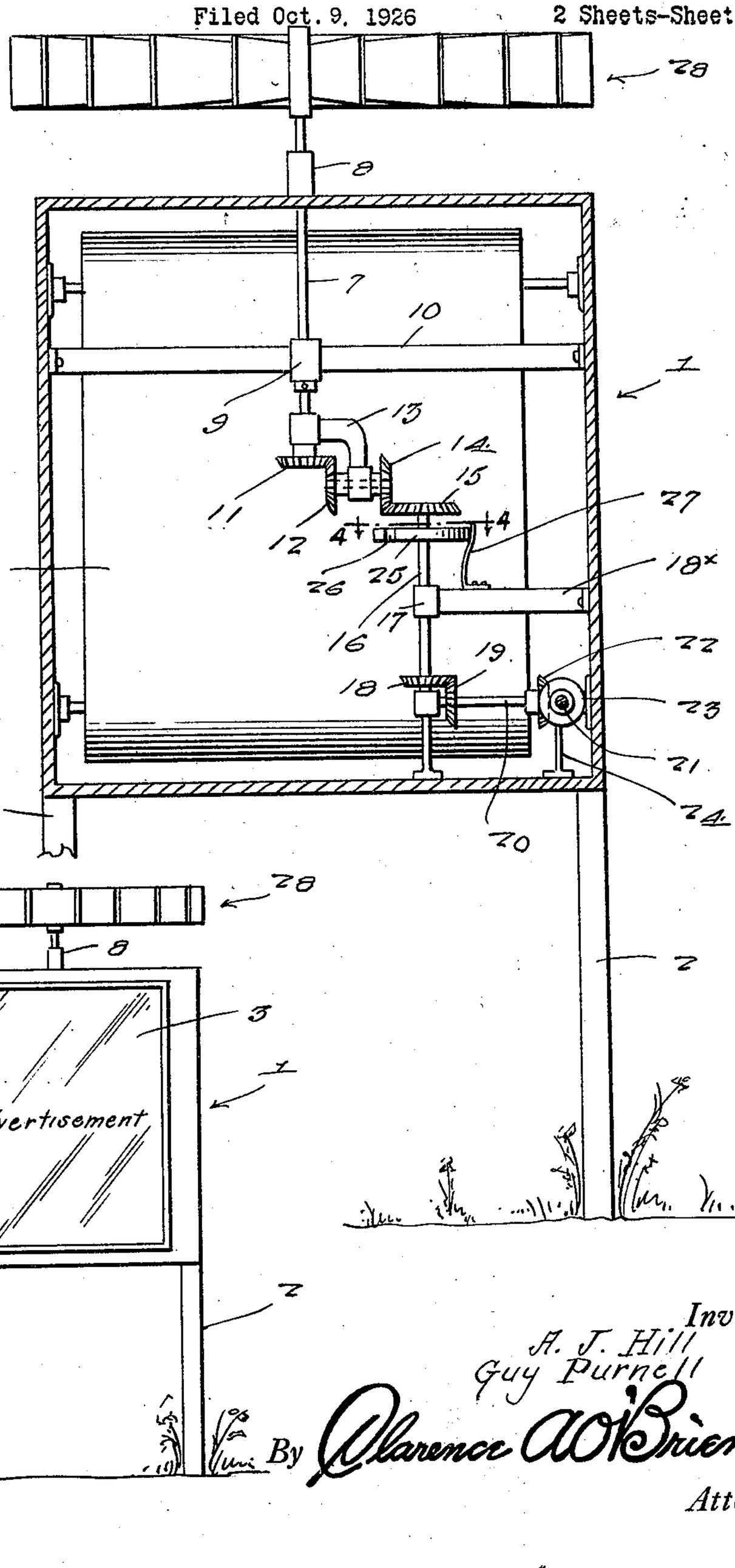

Fig. 4.

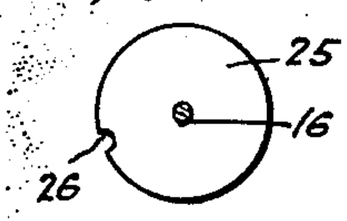

Fig. 1.

Inventors
A. J. Hill
Guy Purnell
By Clarence O'Brien
Attorney

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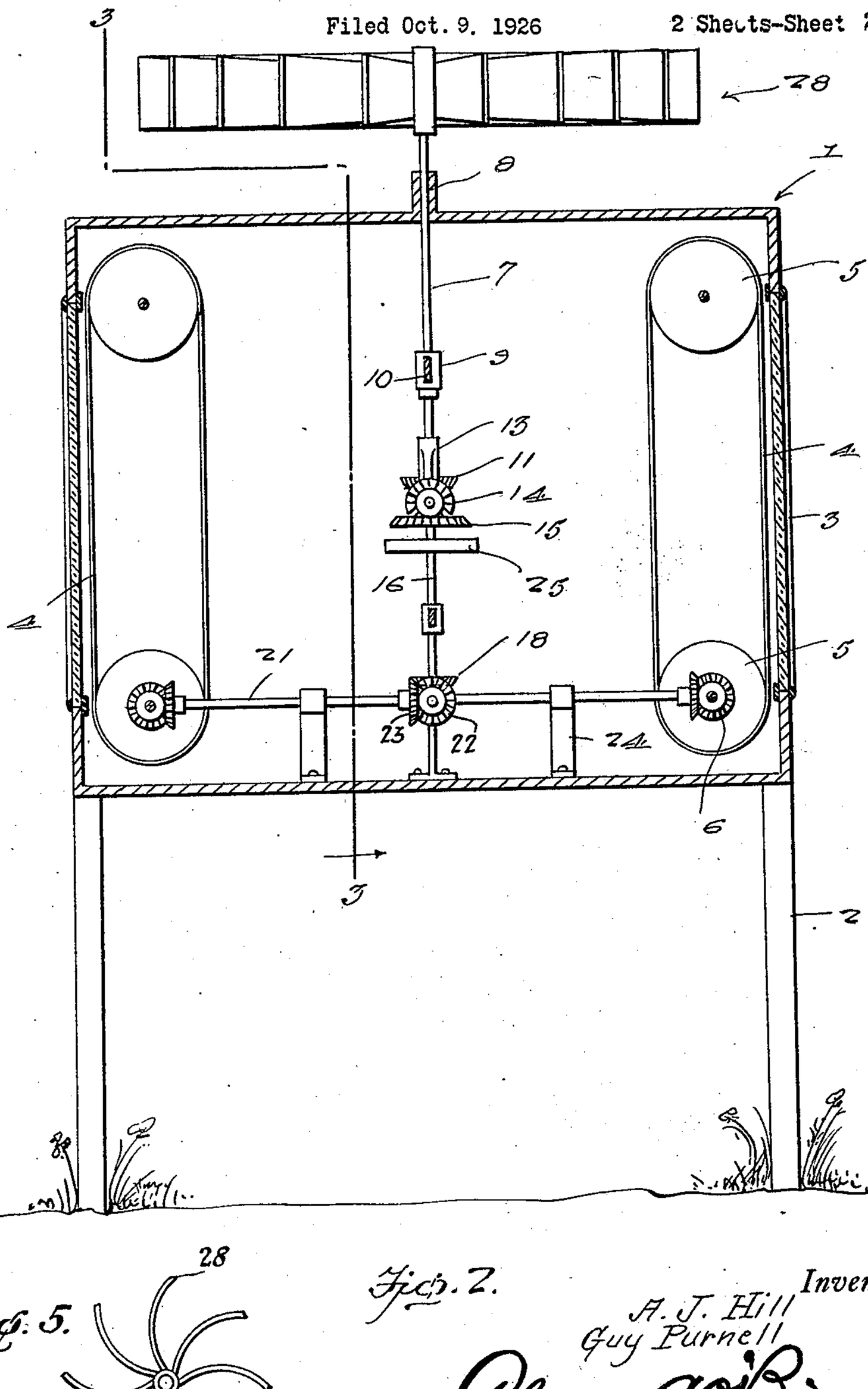

Fig. 2.

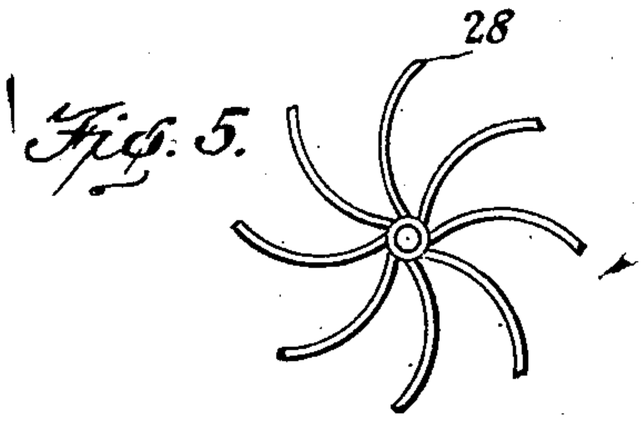

Fig. 5.

Inventors
A. J. Hill
Guy Purnell

By Clarence O'Brien
Attorney

Patented Mar. 20, 1928. 1,663,165

UNITED STATES PATENT OFFICE.

ALVIN J. HILL AND GUY PURNELL, OF ANGLETON, TEXAS.

ADVERTISING DEVICE.

Application filed October 9, 1926. Serial No. 140,604.

This invention relates to an improved advertising device which is especially, but not necessarily, adapted for use upon public highways for displaying various advertisements to persons passing the device.

Briefly, the invention comprises a housing of appropriate configuration provided with windows and suitable supporting means. Arranged on the inside of this housing opposite the windows are endless bands carrying advertising matter adapted to be brought opposite the windows for display. Cooperating with the rotating means for the bands is a driving mechanism including gears of proper ratio and located on the exterior is a fan having blades and adapted to be driven by air currents.

What we propose to do is to provide a simple and inexpensive structure of this kind which is substantially automatic in operation, the advertising exhibitors being of the changeable type so that when the wind is blowing sufficiently strong, the advertising media will be displayed from time to time.

The invention is further characterized by compactness and convenience of arrangement of parts wherein the association is such as to insure efficient operation without requiring attention.

Other features and advantages will become apparent from the following description and drawings.

In the drawings:

Figure 1 is an elevational view showing the complete structure,

Fig. 2 is an enlarged view partly in section and partly in elevation showing the general arrangement,

Fig. 3 is a section taken approximately upon the plane of the line 3—3 of Fig. 2.

Figure 4 is a detail horizontal section taken on the plane indicated by the line 4—4 of Figure 3 looking downwardly.

Fig. 5 is a plan view of the rotor.

The housing is generally designated by the reference character 1 and this may be of any suitable configuration. It is here shown as of general rectangular outline, the same being carried on appropriate supporting legs 2 and being provided at opposite sides with transparent window panes 3. An advertising device is located on the interior in back of these window panes and each device comprises an endless band of suitable material carrying various kinds of advertisement. The band is trained over drums 5 mounted on rotary shafts. The lower shafts are provided with beveled gears 6 with which the operating means has driving connection.

The operating means, as better shown in Fig. 3, comprises a main driving shaft 7 extending downwardly through a bearing 8 carried on the top of the casing. The lower end portion of the shaft extends through another bearing 9 formed integral with the central portion of a cross bar 10 supported on the interior of the housing. On the lower end of this shaft is a beveled gear 11 in mesh with a complemental gear 12. The gear 12 is carried by a relatively short, horizontally disposed stub shaft supported from a hanger 13 of right angular form. The hanger is in turn supported from the main shaft 7 and is held against rotation by a brace, not shown, between the hanger 13 and the housing 1 or by any other conventional means. Also mounted on the said stub shaft is a gear 14 in mesh with a larger beveled gear 15. The gear 15 is carried by the upper end of a driven shaft 16 also vertically disposed and rotatable in a bearing 17 on the inner end of a bracket arm 18×. Another gear 18 is carried by the shaft 16 and is in mesh with an associated gear 19 on a right angularly disposed shaft 20. This shaft 20 serves to impart rotation to a horizontally disposed and relatively long shaft 21 through the medium of intermeshing gears 22 and 23 respectively. The shaft 21 is supported in bearings on short standards 24.

Attention is now directed to a brake disk 25 mounted on the shaft 16 just beneath the beveled gear 15. This brake disk is formed in its periphery with a notch 26 into which a resilient arm or detent 27 on a bracket arm 18× is adapted to snap to temporarily maintain the driving mechanism ineffective. Mounted on the exposed upper end of the aforesaid shaft 7 is a wind wheel 28 including a multiplicity of blades shaped as shown and disposed in horizontal plane.

In operation, the wind acts against the blades of the rotor 28, imparting rotation to the shaft 7 and through the medium of the train of gearings, the supplemental shafts 16, 20 and 21 are driven. It follows that the gears on the ends of the shaft 21, being in mesh with the first named beveled gears 6, rotate the drums 5. The result is that the bands 4 are moved and in so doing the

advertising matter thereon is displayed through the window panes 3. Attention is directed to the fact, however, that it would not be desirable to have these bands continuously operate. The invention is believed to be more effective by temporarily stopping the bands at times, and this is done through the medium of the spring 27 which is snapped into the notch 26 on the brake disk 25. If this happens when the wind is comparatively weak, the advertising bands will stay stationary until the wind becomes sufficiently strong to literally force the spring 27 out of the notch 26. In other words, it is necessary for the wind to be sufficiently strong to overcome the action of the spring 27 in order to produce a substantially continuous movement of the advertising bands.

It is believed that by considering the description in connection with the drawings, a clear understanding of the invention will be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

We claim:

An advertising device comprising a housing provided at one side thereof with a window pane, upper and lower shafts within the housing, drums on said shafts, an endless advertising band movable over said drums with one of its stretches opposed to said window pane, a horizontally disposed driven shaft, gearing between said driven shaft and the lower of the first named shafts, a vertical driving shaft extending through the top of the housing, a wind wheel on said shaft above and spaced from the housing, a gearing train between said driving shaft and driven shaft for rotating the latter by the former, a brake shaft included in said gearing train and having a notch in its periphery, and a spring detent supported in the housing and adapted to seat in said notch for the purpose set forth.

In testimony whereof we affix our signatures.

ALVIN J. HILL.
GUY PURNELL.