To all whom it may concern:

Be it known that I, GEORGE McCRAE, of the city of Brantford, in the county of Brant, Province of Ontario, Canada, a subject of the King of Great Britain, have invented certain new and useful Improvements in Cylindrical Driers and Coolers, of which the following is a specification.

This invention relates to cylindrical devices, usually rotary, through which materials to be dried or cooled are passed, and are tumbled or lifted and dropped to expose them fully to the drying or cooling air passing through the device. Ordinarily the shells of such apparatus are formed of lapped and riveted plates, and my object is to devise a construction of shell which will be stiffer, stronger and lighter than the ordinary shell and which is well adapted for the provision of flights or lifting devices within the shell.

I attain my object by forming the shell of a plurality of longitudinal sections, each section having an outwardly extending flange formed along each straight edge abutting a similar flange on the adjacent section, the adjacent sections being secured together preferably by rivets or bolts. To form flights or lifting ribs, the flanges may extend inwardly as well as outwardly.

The invention is hereinafter more fully described and is illustrated in the accompanying drawings in which

Fig. 1 is a side elevation, partly broken away, of a cylindrical drier or cooler constructed in accordance with my invention;

Fig. 2 a cross section of the same; and

Fig. 3 a longitudinal section of part of the same.

In the drawings like numerals of reference indicate corresponding parts in the different figures.

The cylindrical heat transferring device, as will be seen from Fig. 1 of the drawings, is in general of ordinary type and is shown as adapted for rotation, 1 being the circular tracks commonly employed and 2 a gear whereby power may be applied to rotate the device. Of course, any ordinary gearing may be employed for this purpose. As indicated particularly in Figs. 2 and 3 of the drawings, the device, instead of being made of lapped and riveted plates, is formed of a plurality of longitudinal sections 3, each section being provided along each of its straight edges with a radial flange 4, these flanges extending outwardly a sufficient distance to provide suitable space for the bolts or rivets by which they are secured together.

Preferably also the flanges 4 extend inwardly as well as outwardly, as shown particularly in Figs. 2 and 3, thus providing additional longitudinal stiffness for the device as well as forming flights or lifting flanges for the tumbiling and lifting of the material on which the device is to operate. These inwardly projecting portions of the flanges may also be used for the purpose of supporting additional flights.

What I claim as my invention is:

1. A cylindrical heat transferring device having a metal shell formed of a plurality of longitudinal sections, each section having an outwardly extending flange formed along each straight edge abutting a similar flange on an adjacent section and secured thereto.

2. A cylindrical heat transferring device having a metal shell formed of a plurality of longitudinal sections, each section having an outwardly and inwardly extending flange formed along each straight edge abutting a similar flange on an adjacent section and secured thereto.

Signed at city of Brantford this 19th day of August 1920.

GEORGE McCRAE.