E. BYERS.

FLY WHEEL.

APPLICATION FILED FEB. 24, 1919.

1,323,962.

Patented Dec. 2, 1919.

FIG_1_

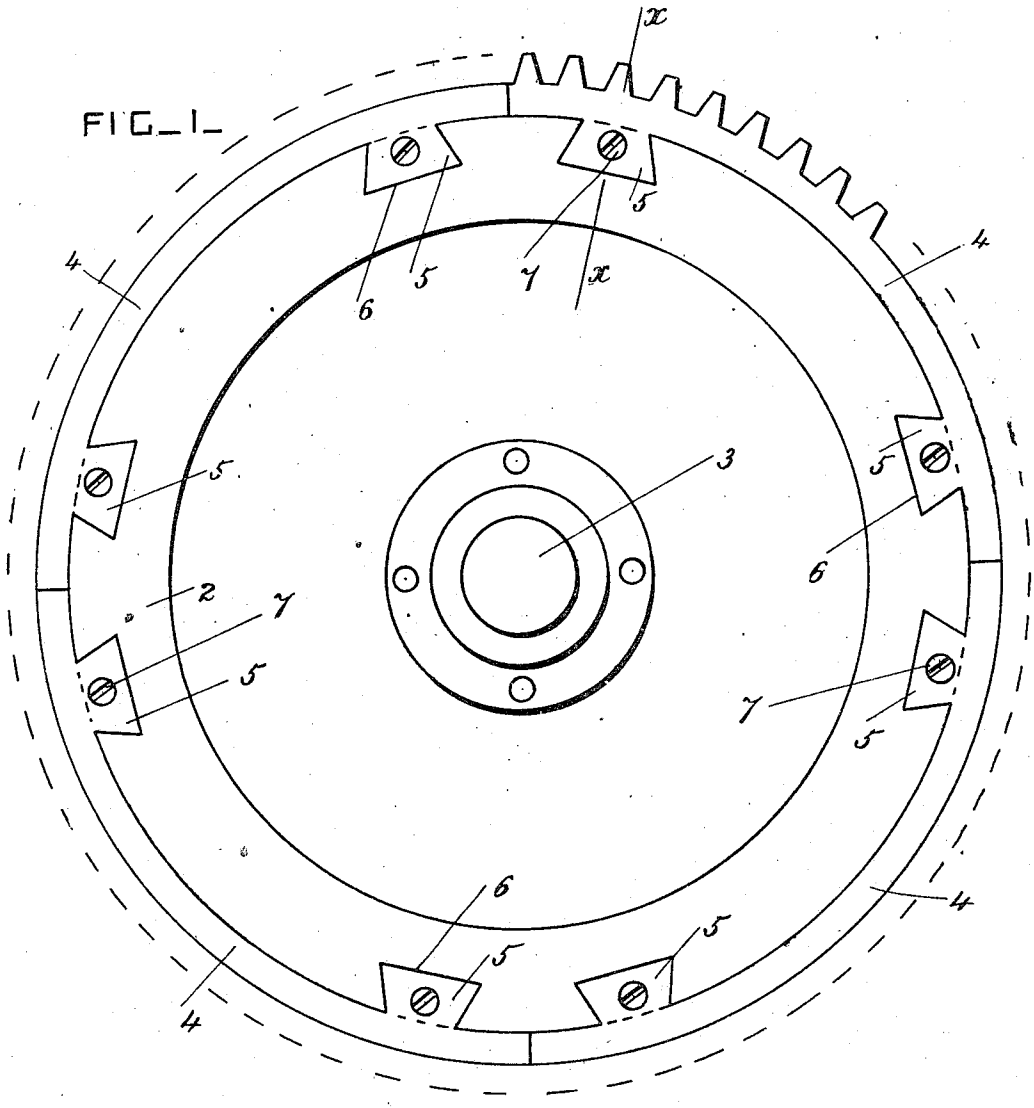
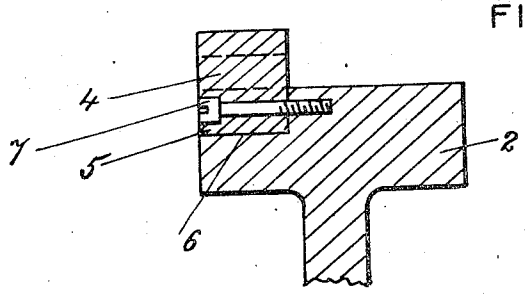


FIG_2_



Inventor
Earl Byers
by Herbert W. Jenner
Attorney

UNITED STATES PATENT OFFICE.

EARL BYERS, OF BELLE PLAINE, IOWA.

FLY-WHEEL.

1,323,962. Specification of Letters Patent. Patented Dec. 2, 1919.

Application filed February 24, 1919. Serial No. 278,909.

To all whom it may concern:

Be it known that I, EARL BYERS, a citizen of the United States, residing at Belle Plaine, in the county of Benton and State of Iowa, have invented certain new and useful Improvements in Fly-Wheels, of which the following is a specification.

This invention relates to the fly-wheels used on the motors used for driving automobiles and for other purposes; and it consists in providing the fly-wheel with toothed segments at its periphery for use in starting the motor as hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of a fly-wheel constructed according to this invention. Fig. 2 is a cross-section through the rim of the fly-wheel, taken on the line *x*—*x* in Fig. 1.

The fly-wheel has a heavy rim 2, and is mounted on the driving shaft 3 of the motor in any approved way. In order to start the motor it is usual to spin the driving shaft sharply, and for this purpose the fly-wheel preferably has a series of toothed wheel segments 4 secured to its periphery. Each of these segments has a pair of dovetailed tongues 5 which project from it, and which are arranged one at each end portion of it. These tongues are arranged radially of the axis of the segments, and they engage with dovetailed sockets 6 formed in the periphery of the rim 2 of the fly-wheel and extending partway across its face.

The toothed segments are fitted together so as to completely encircle the fly-wheel, and 7 are screws inserted through holes in the tongues parallel to the tops of the teeth, and screwed into holes in the rim of the fly-wheel. The outer sides of the segments are arranged flush with the side of the fly-wheel, and the heads of the screws are preferably sunk into recesses in the segments so that there may be no lateral projections on the rim of the fly-wheel.

By using separate removable segments, any segment can be removed and replaced, whenever any of its teeth become worn or broken, without taking the motor to pieces or providing it with a new fly-wheel.

What I claim is:

1. The combination, with a fly-wheel provided with dovetailed sockets at its periphery, said sockets being open at one side of the wheel rim and extending partway across its outer face, of a series of toothed segments, each segment being provided with two dovetailed tongues which are slidable in two of the said sockets, and fastening devices inserted through holes in the said tongues and securing the segments to the rim.

2. The combination, with a fly-wheel provided with dovetailed sockets at its periphery, of a series of toothed wheel segments arranged around the periphery of the rim of the fly-wheel, each said segment being provided with a pair of dovetailed tongues which are slidable in the said sockets, and fastening screws inserted through holes in the said tongues and engaging with screwthreaded holes in the rim of the fly-wheel and having heads sunk into recesses in the said segments, the outer sides of the said segments being arranged flush with the side of the rim of the fly-wheel and being free of lateral projections.

In testimony whereof I have affixed my signature.

EARL BYERS.