

(No Model.)

2 Sheets—Sheet 1.

B. C. SEATON.
YIELDABLE GEAR WHEEL.

No. 480,439.

Patented Aug. 9, 1892.

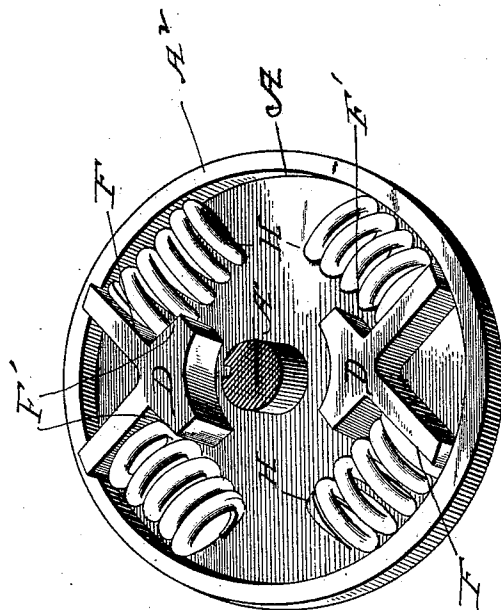
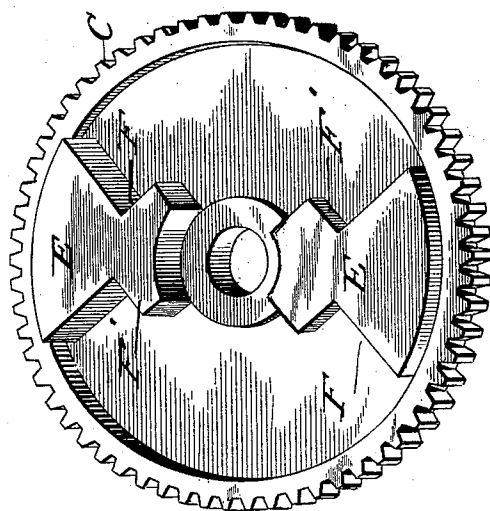


Fig. 1.



B

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Inventor:

Witnesses:

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By,

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Attorney.

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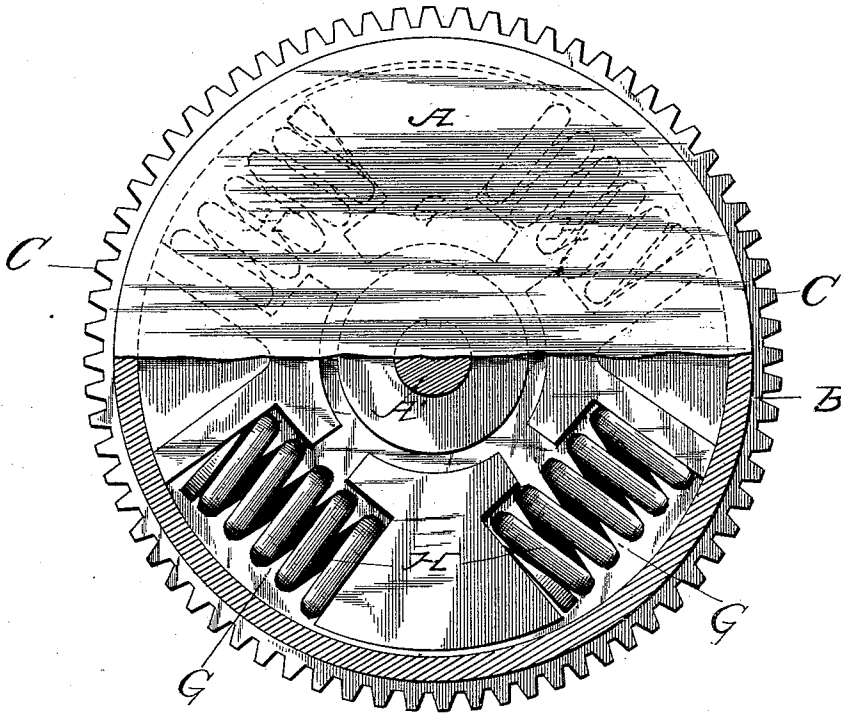
2 Sheets—Sheet 2.

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Fig. 2.



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UNITED STATES PATENT OFFICE.

BENJAMIN CAPLIN SEATON, OF NASHVILLE, TENNESSEE.

YIELDABLE GEAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 480,439, dated August 9, 1892.

Application filed November 17, 1891. Serial No. 412,128. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN CAPLIN SEATON, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Yieldable Gear-Wheels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in gear-wheels or driving-wheels, and has special reference to a spring or yieldable gear-wheel.

The objects of my invention are the provision of a gear-wheel which will cause the mechanism with which it is employed to start without jar or shock and run smoothly and easily, which will prevent breaking of the teeth of the gear-wheel and thereby increase the life of the device and reduce the cost, and which will be strong and durable and inexpensive, thus possessing the features desired to render the device practical and useful.

To attain the desired objects the invention consists of an improved construction of sectional gear-wheel, substantially as disclosed herein.

In order that the construction, operation, and advantages may be readily understood, I have shown my improvement in the accompanying drawings, in which—

Figure 1 represents a perspective view of the two sections or disks of the wheel detached, looking at their inner faces; and Fig. 2 represents a side elevation of the complete wheel with sections fitted together, one section being broken away to clearly disclose details.

My improved gear or driving wheel is composed of two wheel sections or disks, (designated A and B.) The wheel A is smaller than wheel B and is fast with the shaft A', and the

wheel B has the wheel A fitted snugly within it and is provided with the overhanging rim, the periphery of which has gear-teeth C and is a loose wheel. The wheel A on its inner face is formed with the oppositely-disposed flaring lugs D, extending toward the center of the disk, forming the bearing faces or sides F, and offset at F' to form seats for springs and the larger wheel or disk B is also formed with flaring lugs E, extending toward the center of the disk, having the bearing faces or sides F and offset at F' to form seats, whereby when the wheels or disks are fitted together the overhanging flange A² of the smaller disk A fits into the rim of the larger disk and the lugs lie in the open spaces of each disk and form four seats or pockets G to receive the springs H, which thus bear against the sides of the flaring lugs, as clearly shown.

It is evident that when the gear-wheel section is moved the springs receive the impact and motion is imparted to the fast section without jar or shock and the wheel may be moved in either direction.

I claim—

A yieldable gear-wheel comprising two disks of unequal sizes, the larger provided with an overhanging rim toothed on its periphery and with two oppositely-projecting flaring lugs extending toward the center of the disk and offset to form seats for springs, the smaller disk being inclosed within the rim of the larger and having an overhanging flange extending toward the larger disk and lugs corresponding with and adapted to fit between the lugs of the first-mentioned disk, and a series of springs, one of each being seated between and bearing against the sides of the opposing lugs of the two disks.

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

BENJAMIN CAPLIN SEATON.

Witnesses:

W. S. ASHWORTH,
A. W. SOUTHWORTH.