

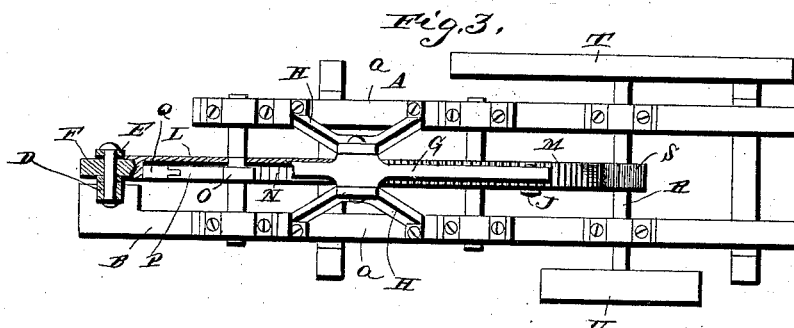
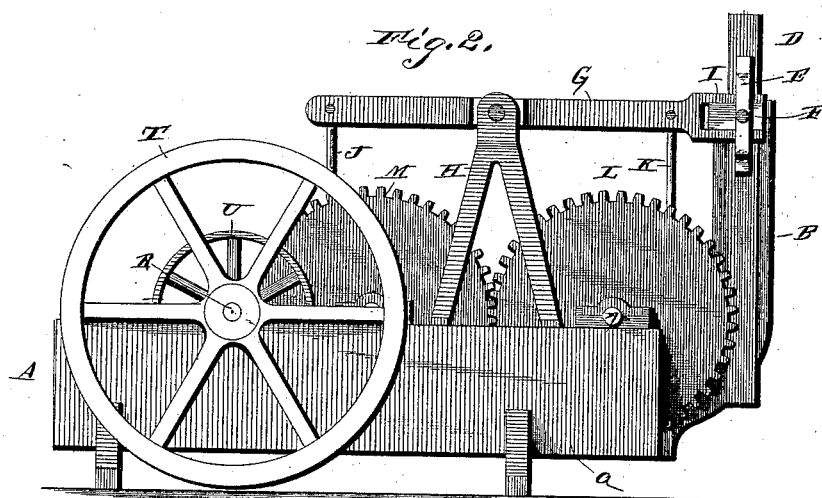
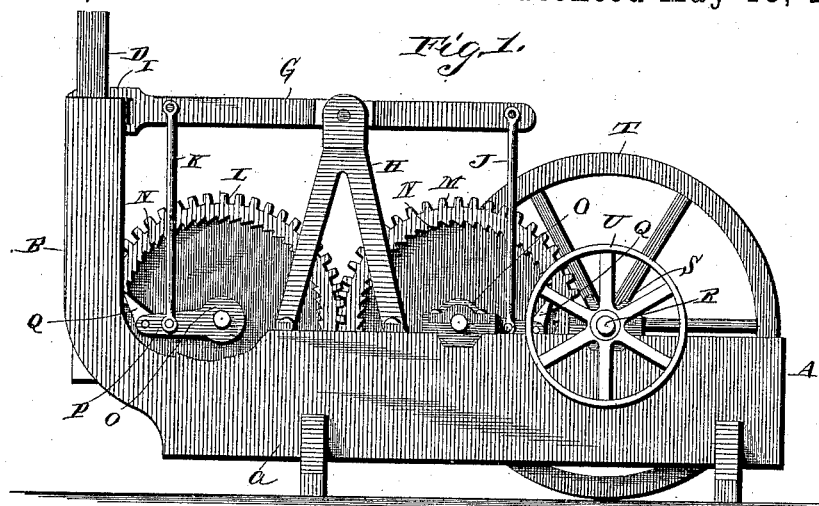
(No Model.)

S. F. KELLOGG.

DEVICE FOR CONVERTING MOTION.

No. 382,881.

Patented May 15, 1888.



Witnesses,

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# UNITED STATES PATENT OFFICE.

SALVIN FREDERICK KELLOGG, CLAY CENTRE, KANSAS.

## DEVICE FOR CONVERTING MOTION.

SPECIFICATION forming part of Letters Patent No. 382,881, dated May 15, 1888.

Application filed September 13, 1887. Serial No. 249,576. (No model.)

*To all whom it may concern:*

Be it known that I, SALVIN FREDERICK KELLOGG, a citizen of the United States, residing at Clay Centre, in the county of Clay and State of Kansas, have invented a new and useful Improvement in Devices for Converting Reciprocating Motion into Rotary Motion, of which the following is a specification.

My invention relates to improvements in devices for converting reciprocating or rectilinear motion into rotary or curvilinear motion; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, which fully illustrate my invention, Figure 1 is a side elevation of my improved device. Fig. 2 is a similar view looking at the opposite side; and Fig. 3 is a plan view, partly in horizontal section.

Referring to the drawings by letter, A designates a supporting-frame, composed of the parallel bars *a a*, mounted upon suitable rests of any desired construction. At one end of one of the side bars I secure a short standard, B, which is longitudinally grooved on its inner face, in which groove the reciprocating rod D fits and works. To the inner side of the reciprocating rod D, I secure a yoke, E, in which I pivotally mount a head-block, F.

G designates a rocking lever, which is fulcrumed between the upper ends of two standards, H H, which are mounted upon the side bars, *a*, of the frame A, and is provided at one end with a fork, I, the arms or tines of which fit upon opposite sides of the head-block F. The opposite end of the lever is provided with a depending link, J, and a similar link, K, depends from the lever G near head-block, both of which will be more fully hereinafter referred.

L M designate two similar cog-wheels, which are mounted upon shafts journaled in the side bars, *a a*, of the frame A, and the teeth of which mesh, as clearly shown. On one face each of these cog-wheels is provided with the internal ratchet-rim N, and on the shaft of each of the wheels L M, I loosely mount a collar, O, having the laterally-extending lugs P, in the slotted ends of which I pivotally secure an

upwardly-projecting pawl, Q, which engages the internal ratchet-teeth of the rim N. The lower ends of the links J K are pivoted to these pawls Q, as shown, so that as the lever G oscillates the pawls will be alternately raised and lowered.

R designates a transverse shaft, on which is mounted a pinion, S, meshing with the wheel M, and on one end of the said shaft R, I mount a fly-wheel, T, while on the other end I mount a band-pulley, U, by means of which the motion may be communicated to the machinery to be driven.

The operation of the machine will be readily understood. When the reciprocating rod makes its downward stroke, the near end of the oscillating lever will be carried downward, thereby depressing the pawl connected with said end of the lever. At the same time the opposite end of the lever is elevated, thereby drawing up the pawl connected therewith, which engages the ratchet-rim and thereby rotates the wheel. On the reverse stroke of the reciprocating rod the other pawl will be brought into play and the power applied to the other gear-wheel, and as the said wheels are geared together their rotation will be continuous, as will be readily understood.

My device is simple and efficient and its advantages will be readily appreciated.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the supporting-frame, the gear-wheels mounted in said frame and meshing together and provided with internal ratchet-rims, the oscillating lever mounted above said wheels, the reciprocating rod connected to said lever, the pawls loosely mounted on the gear-wheel shafts, and the links connecting the opposite ends of the lever with the said pawls, substantially as described.

2. The combination of the supporting-frame, the cog-wheels mounted thereon and geared together and provided with internal ratchet-rims, the standards mounted on the supporting-frame, the oscillating lever fulcrumed between said standards and forked at one end, the reciprocating rod having a yoke on one side,

the head-block pivotally mounted in said yoke, and to which the tines of the forked end of the oscillating lever are fitted, the pawls loosely mounted on the shafts of the cog-wheels and  
5 engaging the ratchet-rims thereof, and the links connecting the ends of the lever with said pawls, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

SALVIN FREDERICK KELLOGG.

Witnesses:

O. P. TELLES,  
HENRY HUNSINGER.