

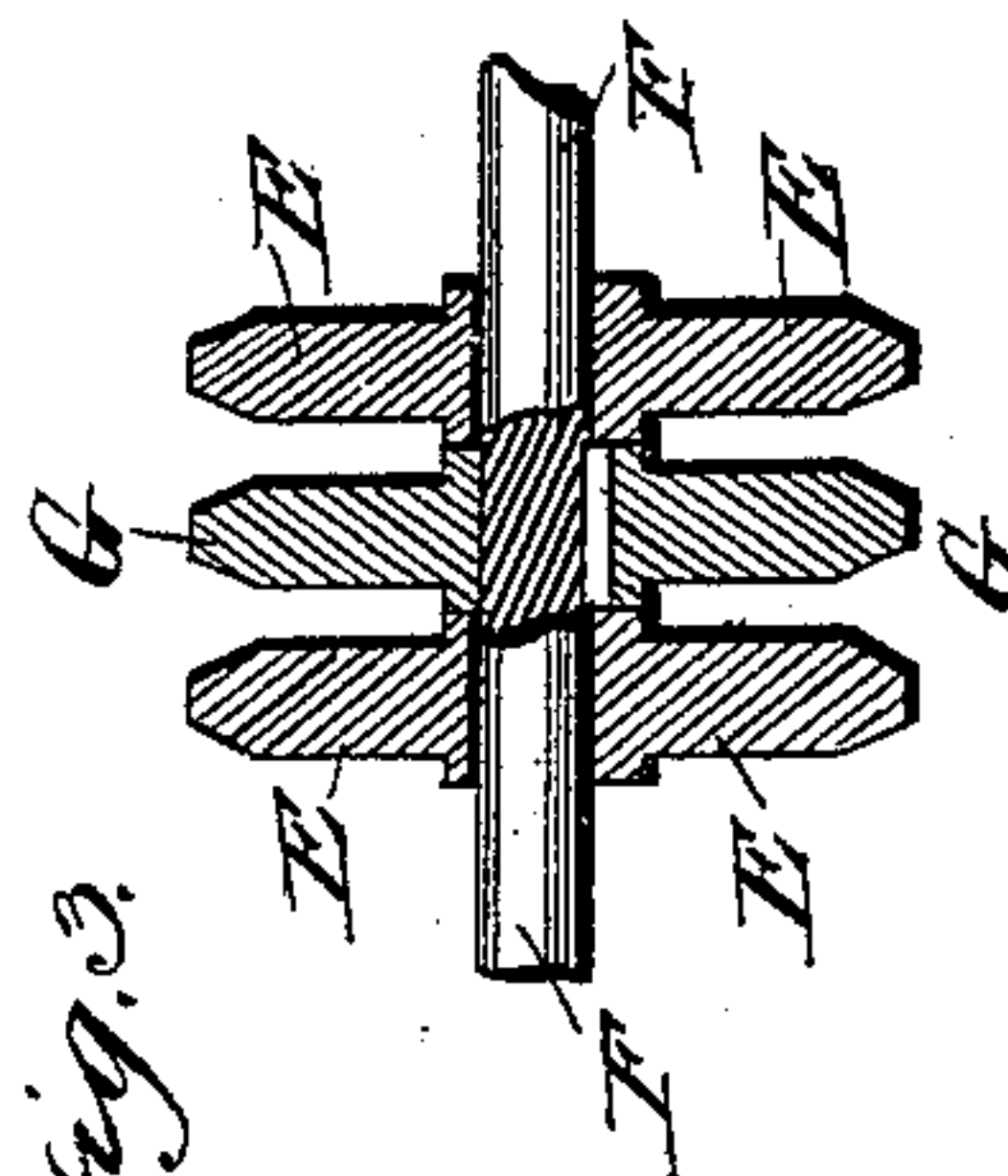
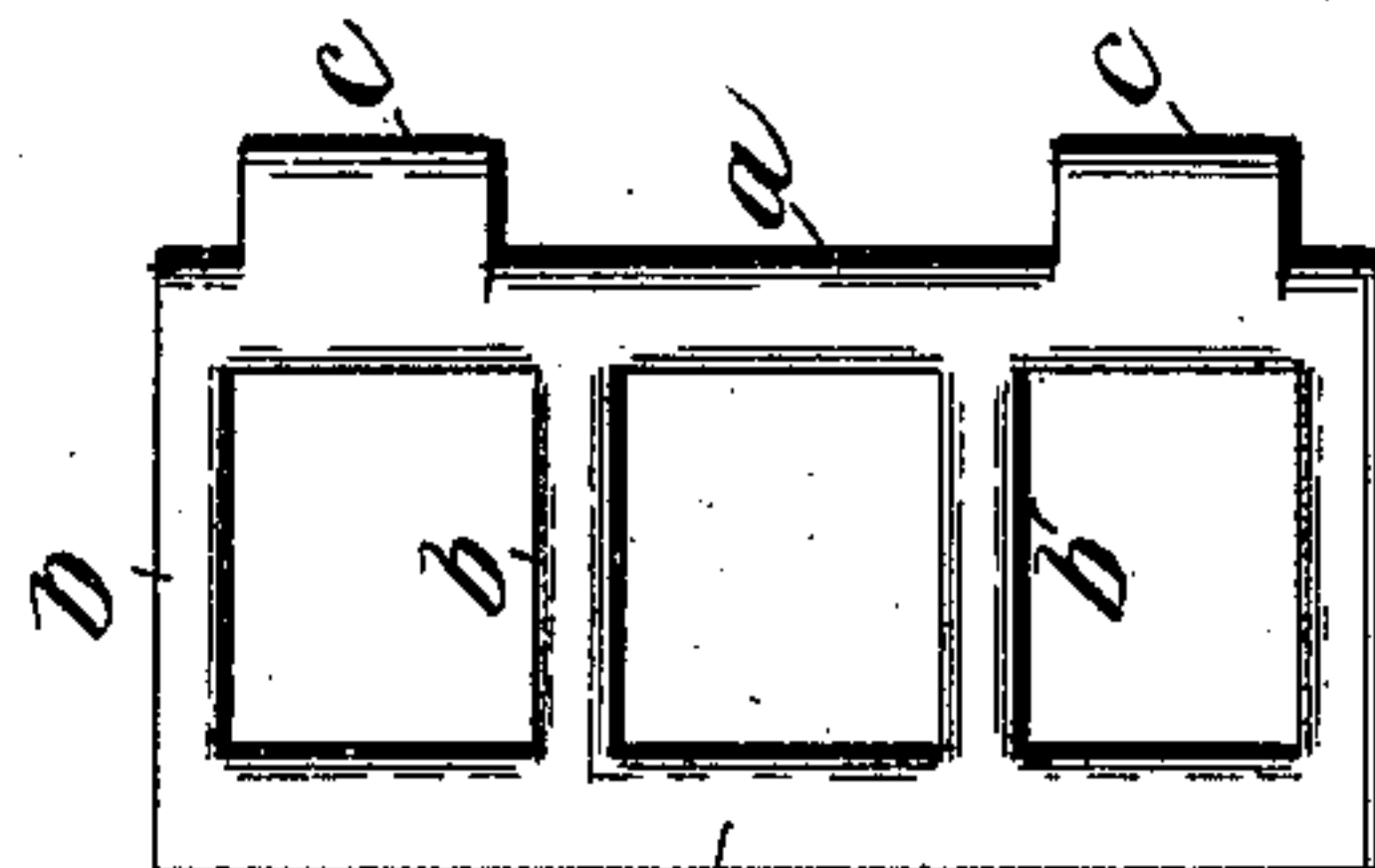
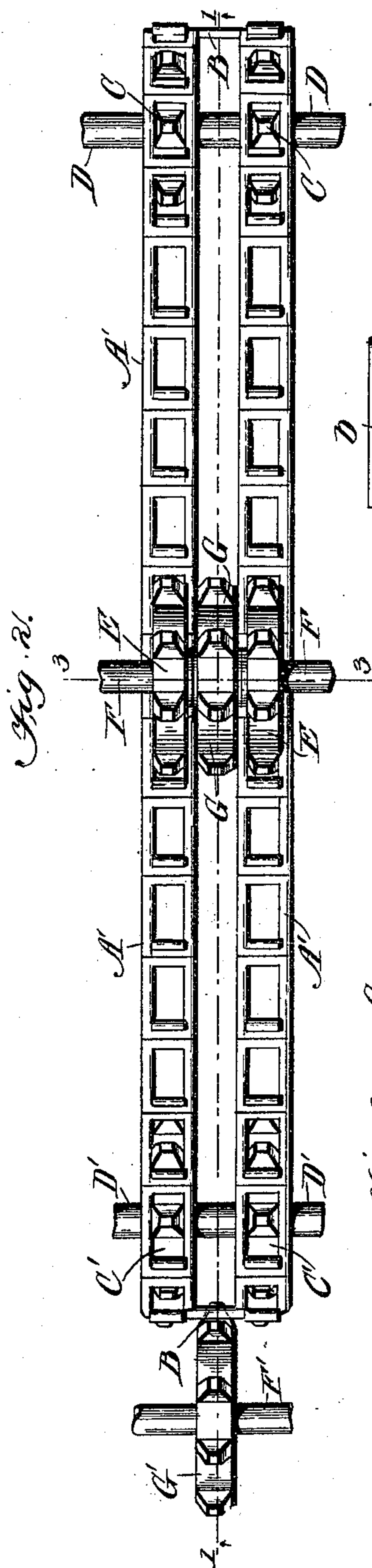
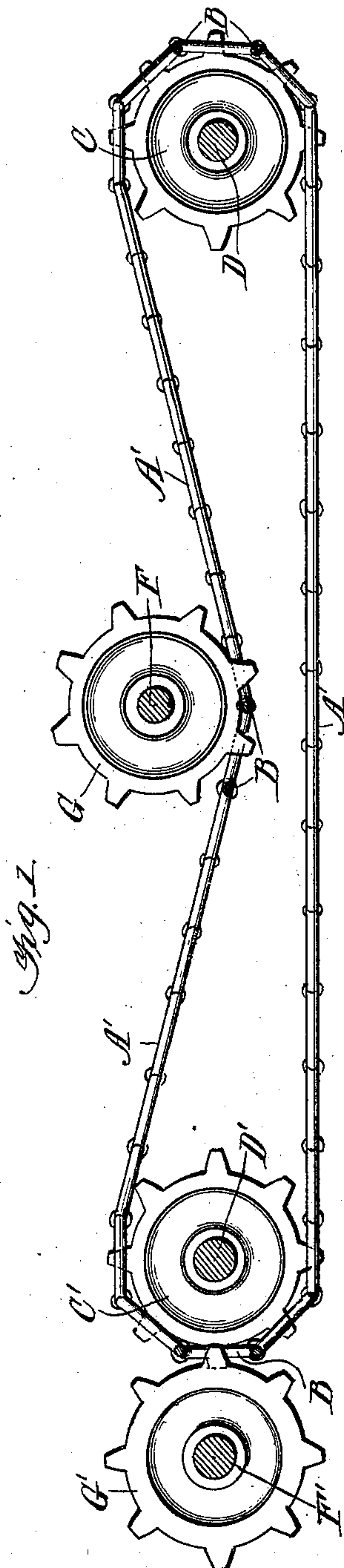
No. 687,146.

Patented Nov. 19, 1901.

L. S. FLECKENSTEIN.  
MECHANICAL GEARING.

(Application filed July 12, 1901.)

(No Model.)



WITNESSES:

*Fred. D. Bradford.*  
*Amos W. Hark*

INVENTOR

*Leonard S. Fleckenstein*

BY *Munn & Co.*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

LEONARD S. FLECKENSTEIN, OF EASTON, MARYLAND.

## MECHANICAL GEARING.

SPECIFICATION forming part of Letters Patent No. 687,146, dated November 19, 1901.

Application filed July 12, 1901. Serial No. 68,006. (No model.)

*To all whom it may concern:*

Be it known that I, LEONARD S. FLECKENSTEIN, of Easton, in the county of Talbot and State of Maryland, have invented a new and  
5 Improved Mechanical Gearing, of which the following is a specification.

The object of my invention is to provide a simple and inexpensive but effective substitute for cog, friction, or belt gearing ordinarily employed heretofore for operating machinery in which some parts have a continuous rotation and others require to have an intermittent rotation.

The invention is embodied in the construction and arrangement of parts hereinafter described.

In the accompanying drawings, Figure 1 is a sectional view of an apparatus embodying my invention, the line of section being indicated by 1 1 on Fig. 2. Fig. 2 is a plan view of the apparatus. Fig. 3 is a transverse section on line 3 3 of Fig. 2. Fig. 4 is a plan view of a double chain-link forming a part of my invention.

As shown in Fig. 2, the sprocket-chain is practically double, it being formed of two like chains A and A', arranged parallel and spaced apart and connected by cross-links B, arranged at intervals in its length. The  
30 chains A A' are preferably of the usual construction, being formed of links which are detachable by a sliding lateral movement. They are connected at intervals by the triple link B. (See Fig. 4.) The same is constructed of two parallel lengthwise bars *a* and parallel transverse or cross-bars *b*, that are spaced equidistantly. The length of the link B will correspond to the distance at which the individual chains A and A' are to be spaced  
40 from each other. The link B has the same engaging hooks *c* as the ordinary or single links of chains A A' and may be similarly connected with and disconnected from said chains, of which it forms an operative part.  
45 It is apparent that since the link B spans the space between the chains A A' the middle portion of its lengthwise bars may engage and rotate a sprocket-wheel arranged as shown in Figs. 1 and 2. Thus the compound  
50 or double sprocket-chain A A' is applied to and runs on two pairs of sprocket-wheels C

C', keyed on shafts D D', respectively, and under central wheels E, mounted loose on a shaft F. The several shafts are parallel. It is apparent the wheels C, C', and E must be  
55 spaced apart correspondingly to the chains A A'. Thus shafts D D' and wheels C C' E are continuously rotated. If now a wheel G be arranged and keyed on shaft F between the wheels E, it is apparent it will  
60 be rotated intermittently by engagement at intervals with links B. In other words, the wheel G and shaft F will be rotated whenever the teeth of said wheel are struck by the central portion of the triple link B, which  
65 spans the space between the chains A A'. Thus by arranging such links B at selected intervals in the double chain any desired number of partial rotations of the wheel G and shaft F may be effected during one complete traverse or revolution of the double  
70 chain. As shown, three such links are placed in and connect the chains A A'.

It is apparent that by arranging another sprocket-wheel G' exterior to wheels C' and  
75 on a shaft F', placed adjacent and parallel to shaft D', the same will be rotated intermittently, like the wheel G.

By the above-described construction of sprocket-chain and arrangement of sprocket-  
80 wheels continuous and intermittent rotation of shafting may be obtained in the most economical manner.

While I have described and illustrated sprocket-chains and wheels proper, it is manifestly within the scope of my invention to employ belts or wire-ropes or other media arranged parallel and connected by cross pins or bars and arranged to run on wheels or pulleys suitably constructed for engagement with  
90 the ropes.

What I claim is—

1. The combination, with two parallel end shafts, and two sprocket-wheels fixed on each of said shafts and spaced apart as specified,  
95 of two endless chains, spaced apart corresponding to said wheels, triple links B, connecting the chains at intervals in their length, a third shaft arranged parallel to the others, and a sprocket-wheel mounted on such third  
100 shaft and arranged for engagement with the central portions of the triple links, whereby

it is rotated intermittently, as shown and described.

2. The combination with two parallel end shafts and two pairs of sprocket-wheels there-  
5 on, of an intermediate shaft and two sprocket-wheels mounted loose thereon, and a sprocket-wheel keyed on the intermediate shaft and

arranged between the loose wheels, and a double or two-part chain having triple connecting links, as shown and described.

LEONARD S. FLECKENSTEIN.

Witnesses:

W. S. WILSON,

CHAS. E. NICOLS.