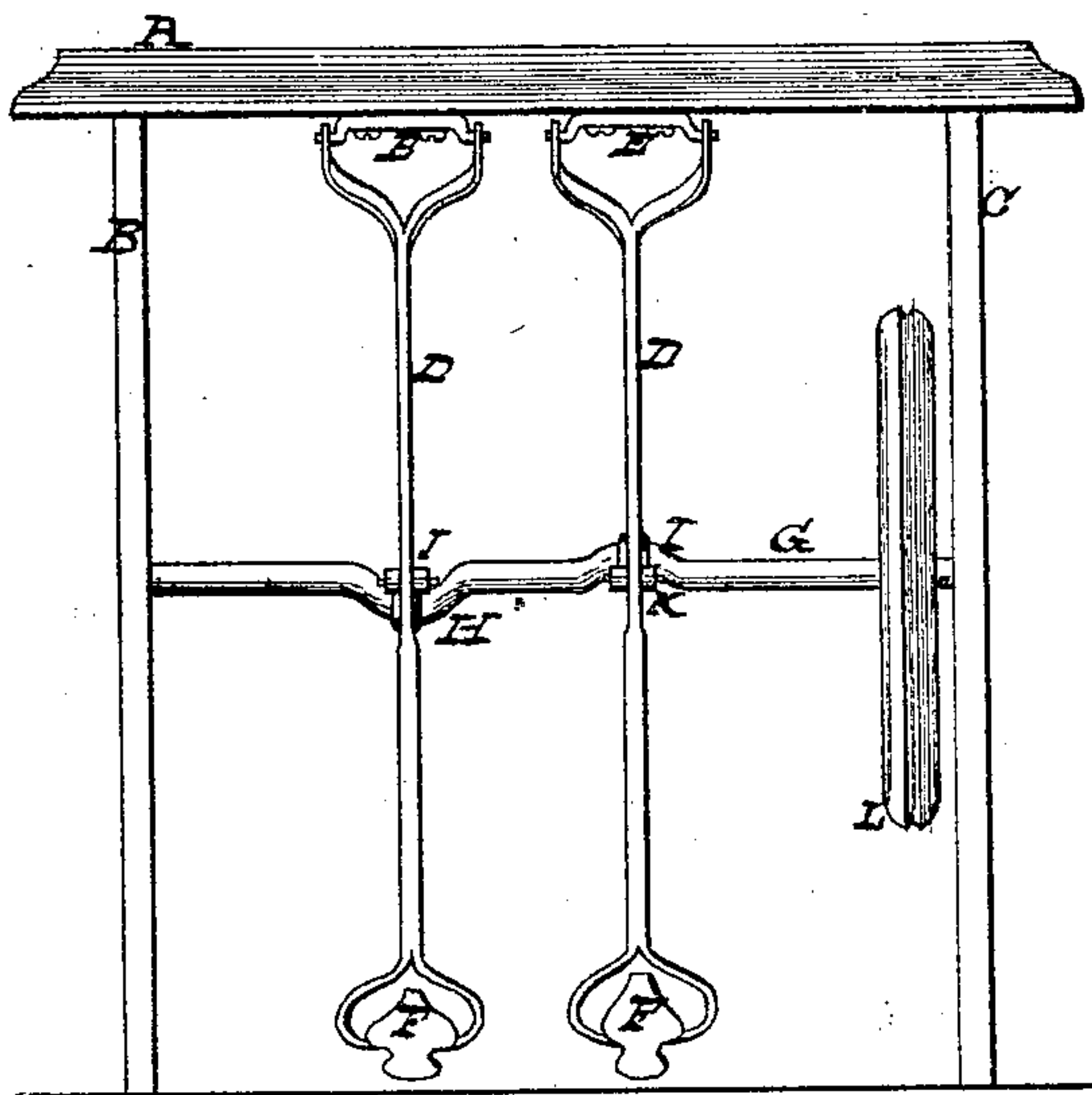


H. J. CASE.  
TREADLE FOR SEWING MACHINES.

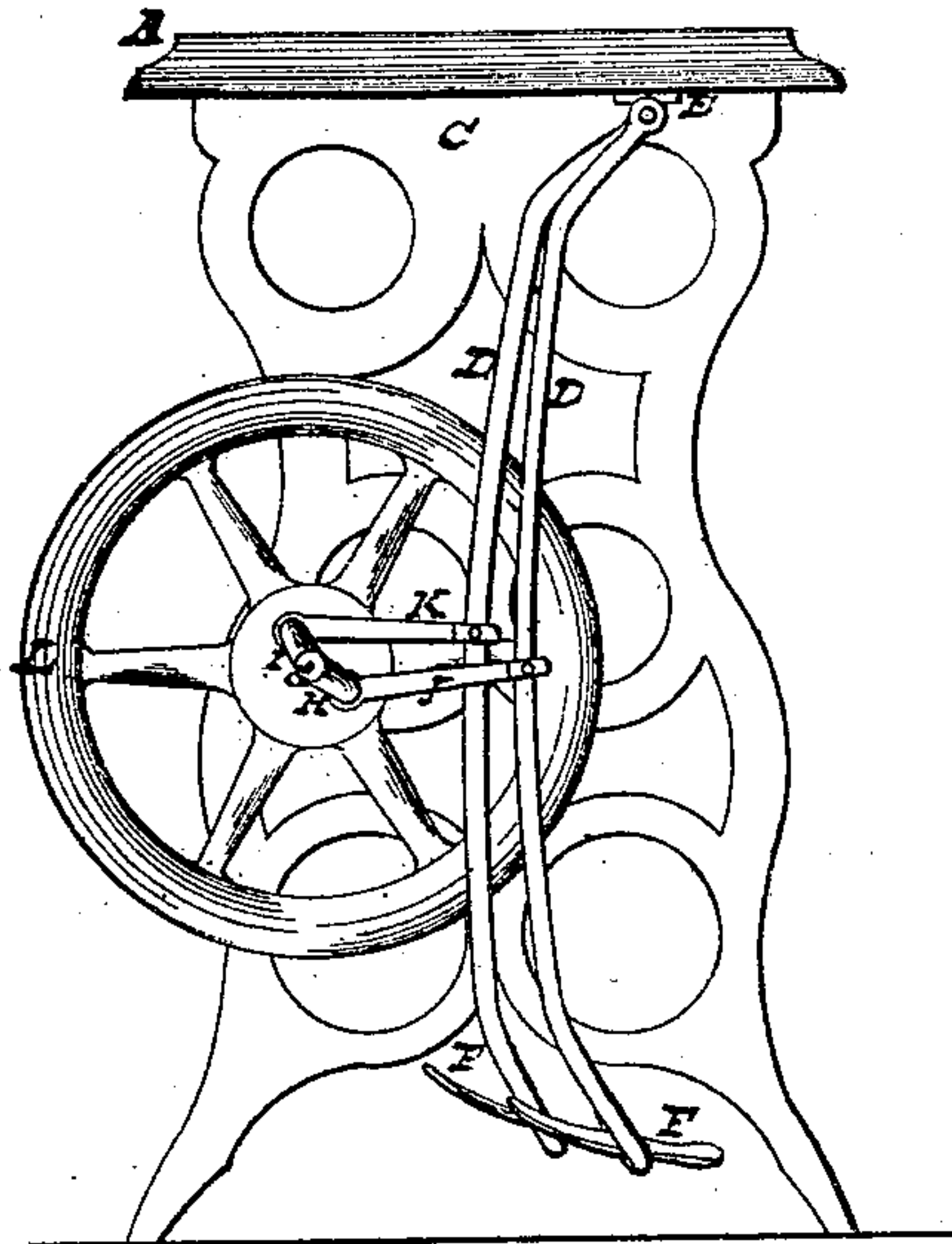
No. 103,562.

Patented May 31, 1870.

*Fig; 1.*



*Fig; 2.*



*Witnesses.*

*Frank R. Rathbun*  
*Rollin Tracy*

*Inventor.*

*Henry J. Case*

# United States Patent Office.

HENRY J. CASE, OF AUBURN, NEW YORK.

Letters Patent No. 103,562, dated May 31, 1870.

## IMPROVEMENT IN TREADLES FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same

Be it known that I, HENRY J. CASE, of the city of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Oscillating or Pendulum Treadles for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, in which—

Figure 1 is a perspective view, and

Figure 2, a transverse section.

The same letters indicate like parts in both figures.

The invention is an improvement on my previous invention, for which Letters Patent were granted me April 20, 1869, and numbered 89,026.

The nature of this improvement consists in pivoting or connecting each pendulum independently of the other, directly to the under side of the table or stand-top by a broad hinge, so as to give the requisite lateral steadiness, and so curving the pendulum that the point of attachment to the stand may be made directly over the knees of the operator, who can sit close to the machine and operate it without having the pendulums interfere with his knees or clothing; and

It further consists in linking each pendulum near its center to separate cranks on the driving-shaft, said cranks being arranged on opposite sides of the axis, but sufficiently to one side of a common plane to overcome what is termed their dead-points; and

It also consists in fastening the foot-rests firmly to the forked or stirrup part of the pendulums.

A represents the top of the stand or table for supporting a sewing-machine. This top or stand is supported at each end by a frame-work and legs, B C.

The pendulums D are forked at their upper ends, and are hinged to pieces E, which are fastened firmly to the under side of the table, in front of its center. This hinged connection may be made in any other way that will give the necessary breadth and lateral stiffness.

The lower ends of the pendulums are also forked, and to each is rigidly fastened a foot-piece, f.

These pendulums are curved, so as to give sufficient room for the knees and clothing of the operator when sitting in proper position for conveniently working the machine.

A shaft, G, mounted in metallic bearings on the legs or frame-work of the stand, has two cranks, H I, formed on it, which are so arranged as to stand nearly on opposite sides of shaft G, but enough outside of a common plane to prevent a common dead point when in operation.

The pendulums D are linked to the cranks by connecting-rods J K, so that the oscillating motion imparted to the pendulum by the feet of the operator will, through the cranks, impart a rotary motion to shaft G, and the band-wheel L mounted thereon, and, through this band-wheel, the necessary motion may be given to the sewing-machine, which may be mounted on the top of the stand.

By curving the pendulums, as shown, the point of attachment for their upper ends is brought directly over the knees of the operator when sitting in the proper working-position, so that, in working the pendulums, very little motion is imparted to the knees, the feet and legs below the knees having a swinging motion back and forth, on the joints of the knees as a center. This motion is found to be much less fatiguing than the ordinary method of working sewing-machines.

Having described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The pendulum D, forked at its upper end and supported at two points, substantially as set forth.
2. The arrangement of bent pendulums D, links or connecting-rods J K, and crank-shaft G, substantially as set forth.

HENRY J. CASE.

Witnesses:

FRANK R. RATHBUN,  
ROLLIN TRACY.