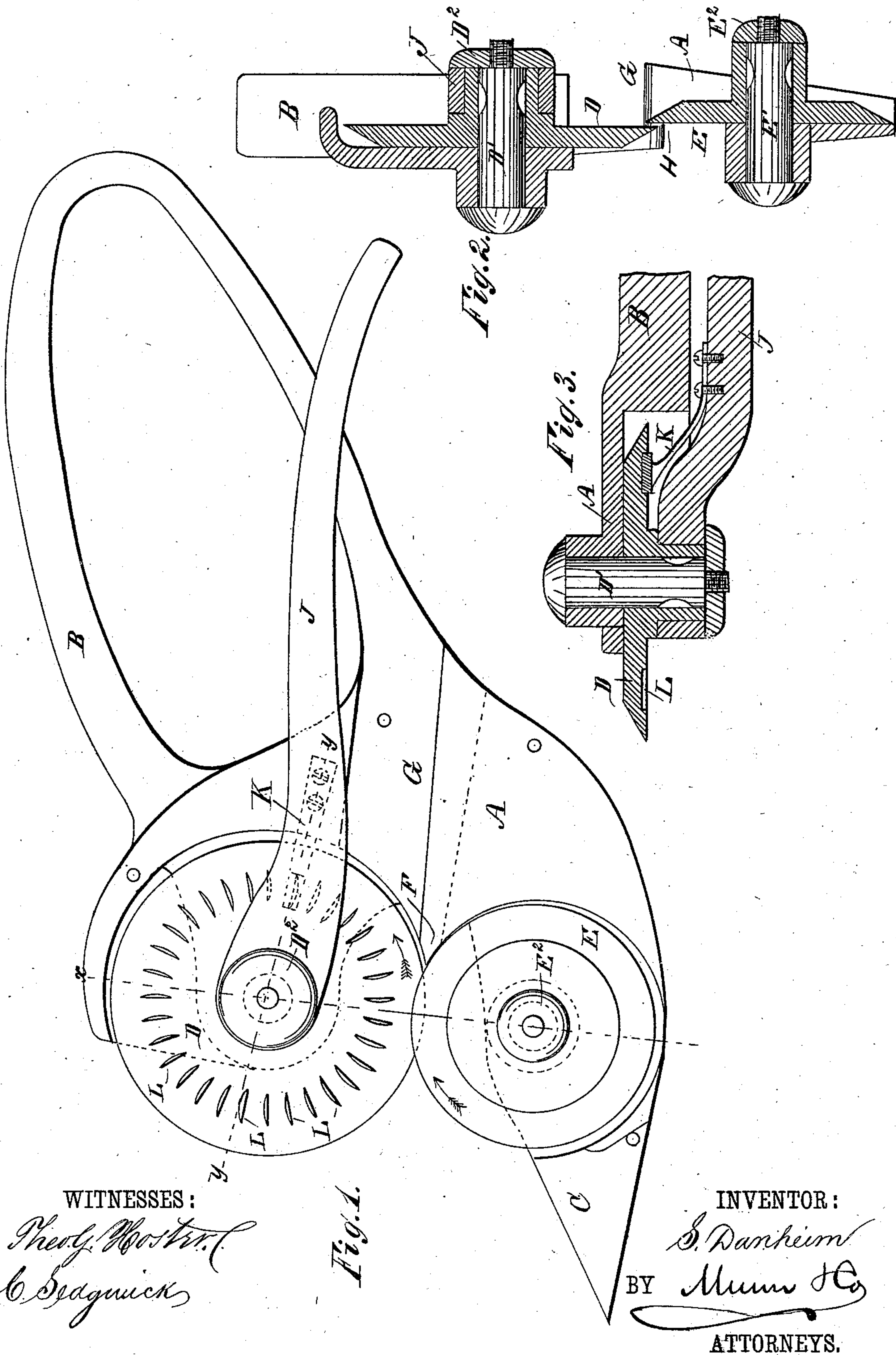


(Model.)

S. DANHEIM.  
CUTTING MECHANISM.

No. 255,102.

Patented Mar. 21, 1882.



WITNESSES:

*Theo. Hostetler*  
*C. Sedgwick*

*Fig. 1.*

INVENTOR:

*S. Danheim*  
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ATTORNEYS.



# UNITED STATES PATENT OFFICE.

SANDOR DANHEIM, OF NEW YORK, N. Y., ASSIGNOR OF ONE-FOURTH TO  
JOHN S. HEINSON, OF SAME PLACE.

## CUTTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 255,102, dated March 21, 1882.

Application filed July 22, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, SANDOR DANHEIM, of the city, county, and State of New York, have invented a new and Improved Cutting Mechanism, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved mechanism for cutting paper, cloth, leather, sheet metal, &c., very rapidly and with clean sharp edges.

The invention consists in a handle-frame with a triangular knife at the lower end, to which frame two overlapping cutting-disks are pivoted, the frame being provided with a short pointed nose between the two disks, from which nose opposite shoulders extend across the frame, the cut parts of the material passing over and under these shoulders.

The invention further consists in a lever loosely mounted on the journal of the upper cutting-disk and provided with a spring-pawl catching in radial recesses in the side of the upper cutting-disk, so that this cutting-disk can be rotated by operating the lever.

In the accompanying drawings, Figure 1 is a longitudinal elevation of my improved cutting device. Fig. 2 is a cross-sectional elevation of the same on the line *x x*, Fig. 1. Fig. 3 is a horizontal sectional view of the same on the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The metal frame A is provided at one end with a handle-loop, B, and at the opposite lower end with a triangular sharp-edged knife, C, from the end of which the edge of the frame is gently curved backward and upward. Two sharp-edged cutting-disks, D and E, are mounted on the journals D' and E' of the frame A and secured on these journals by nuts D<sup>2</sup> and E<sup>2</sup>, or can be pivoted to the frame in some other suitable manner. However, in all cases the cutting-disks must overlap each other slightly, as shown, and must almost be in contact. The lower wheel or disk, E, must not project beyond the lower edge of the frame A, so as not to de- face the table upon which the material to be cut rests, and at the same time to prevent the edge of this disk from being blunted or injured. The frame is provided with a short nose or projection, F, the point of which is in line with the inner crossing of the peripheries of the disks

D and E. The frame is provided with a rectangular bend extending from the nose F transversely across the frame, and forming the opposite shoulders, G and H, on opposite sides of the frame; or the frame may be provided on each side with a groove, the upper edge of one groove and the lower edge of the opposite groove forming the above-described shoulders. A lever, J, is loosely mounted on the journal of the disk D, and is provided with a spring-pawl, K, which catches in notches or recesses L in the side of the upper cutting-disk.

The operation is as follows: The instrument is seized by the handle B and pushed forward, the edge of the material that is to be cut sliding up the projection or knife C upon the edge of the wheel E, and is cut by the disks D and E. The nose F guides the material on one side of the cut upon the shoulder G, over which it passes as the instrument moves forward, and the material on the other side of the cut is guided slightly downward to pass along the shoulder H as the instrument is moved forward. If the material to be cut affords too much resistance to permit moving the instrument forward, the upper disk, D, is rotated by means of the lever J. If this lever is raised, the end of the spring K catches in one of the notches L, and thus rotates the disk D, as indicated by the arrow. As soon as the lever J is released it drops by its own weight, and is then again raised, and so on. The handle B and the lever J can both be seized at the same time, and the instrument can be pushed forward while operating the lever. The cutting-disks can be surrounded by a casing provided with slots corresponding to the shoulders G and H.

If desired, the handle and lever can be arranged at the opposite end of the instrument, so that the instrument can be drawn instead of pushed. If the cut is to begin in the middle of the piece of material, the material is pierced by means of the knife C, and the cutting device is gradually introduced.

If desired, a flexible power-transmitting shaft can be attached to the upper disk, D, to operate the same.

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

1. A frame for a cutting mechanism, constructed, substantially as herein shown and described, with depressions or grooves in the sides,



forming shoulders G and H, to prevent an undue spreading, bending, and buckling of the material, as well as prevent undue friction on the frame, as set forth.

5 2. In a cutting mechanism, the combination, with the frame A, provided with shoulders G and H on the sides thereof, of the disks D and E and the knife C at the lower end of the frame, substantially as herein shown and described,  
10 and for the purpose set forth.

3. In a cutting mechanism, the combination, with the frame A, provided with shoulders G and H on the sides, of the disks D and E, the knife C at the lower end of the frame, and of  
15 the projection F, substantially as herein shown and described, and for the purpose set forth.

4. In a cutting mechanism, the combination,

with the frame A, of the cutting-disk E, the cutting disk D, provided with notches or recesses L, the lever J, and the spring-pawl K, 20 substantially as herein shown and described, and for the purpose set forth.

5. In a cutting mechanism, the combination, with the frame A, of the handle B, the point C, the projection F, the cutting-disk E, the cutting-disk D, provided with notches or recesses 25 L, the lever J, and the spring-pawl K, substantially as herein shown and described, and for the purpose set forth.

SANDOR DANHELM.

Witnesses:

OSCAR F. GUNZ,

C. SEDGWICK.