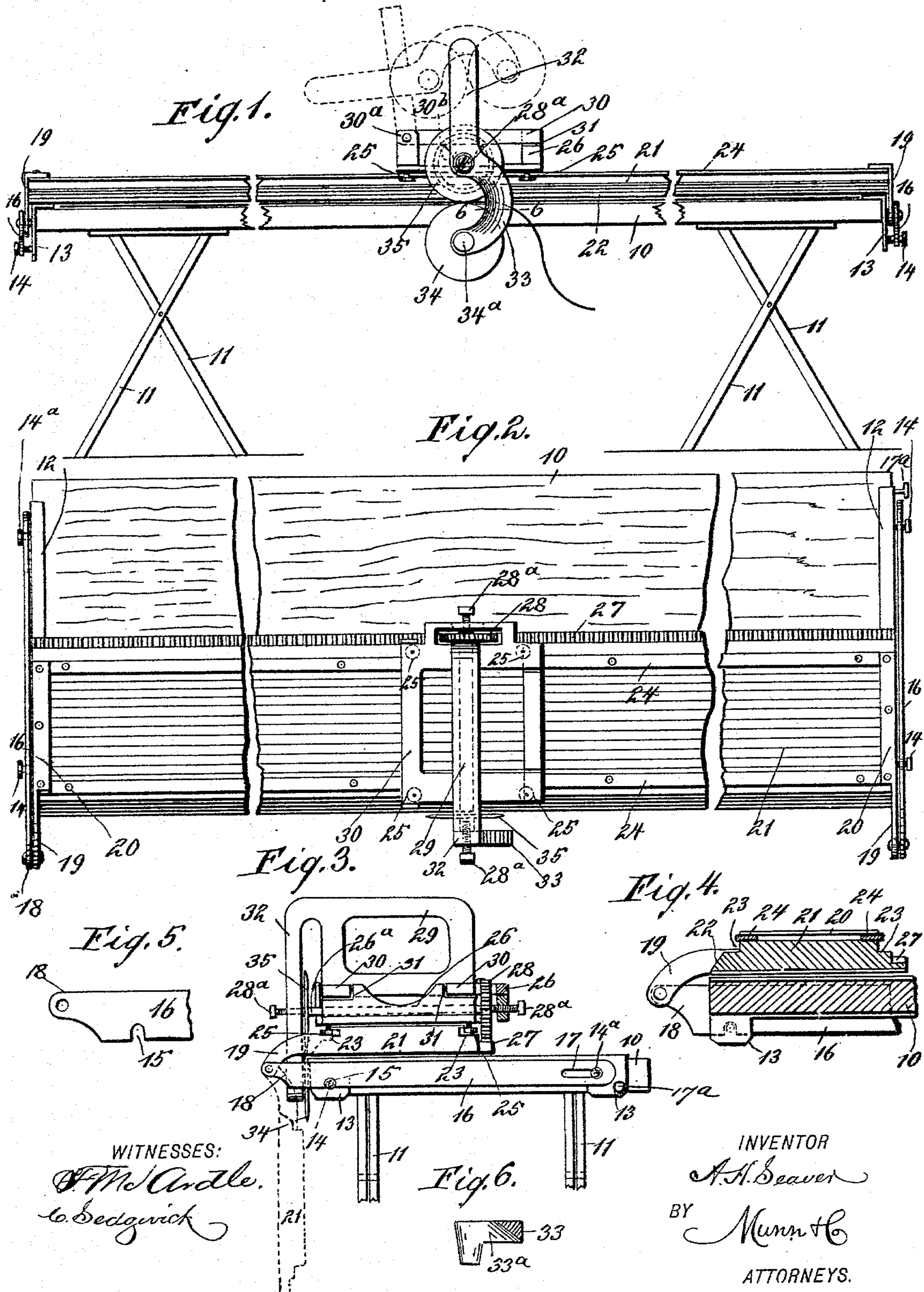


(No Model.)

A. H. SEAVER.
COMBINED BOARD AND CUTTER.

No. 516,026.

Patented Mar. 6, 1894.



UNITED STATES PATENT OFFICE.

ALONZO H. SEAVER, OF WEBSTER CITY, IOWA.

COMBINED BOARD AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 516,026, dated March 6, 1894.

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To all whom it may concern:

Be it known that I, ALONZO H. SEAVER, of Webster City, in the county of Hamilton and State of Iowa, have invented a new and Improved Combined Board and Cutter, of which the following is a full, clear, and exact description.

My invention relates to improvements in paper hangers' boards and cutters, such as are used in pasting paper which is to be applied to walls and in trimming the same.

The objects of my invention are to produce a simple apparatus of this kind in which the cutter and table or board are combined, to provide a swinging leaf which carries the cutter and is adapted to lie upon the paper so as to hold the same in place, to produce a straight edge on the leaf so that the paper may be cut straight, to provide for adjusting the leaf in and out upon the table, to engage the leaf so that it may be dropped down out of the way when not in use, to construct the cutter in such a way that it will cut readily and smoothly through pasted paper, to arrange the cutting disks so that they may be easily turned and will rapidly cut by simply pushing with the cutter upon the table, and in general to construct the apparatus so that the paper may be easily and rapidly pasted and trimmed.

To this end my invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken front elevation of a board or table and cutter comprising my invention. Fig. 2 is a broken plan view of the same. Fig. 3 is a broken end view of the apparatus. Fig. 4 is a detail cross section through a portion of the board and leaf showing the latter turned up so as to lie upon the board. Fig. 5 is a broken detail view of one of the sliding end pieces which carry the leaf; and Fig. 6 is a detail cross section through the cutter arm on the line 6—6 in Fig. 1.

The board or table 10 is substantially of the usual kind having straight edges, and it is supported on the usual legs 11. The ends of the table are provided with metallic binding

strips 12 which have depending lugs 13 near their ends, the front lugs being provided with outwardly extending pins 14 which are adapted to engage notches 15 in the lower edges of the sliding end strips 16, see Fig. 3, which carry or support the leaf, as hereinafter described.

When the pins 14 engage the notches 15 the strips 16 are locked in place. Near their rear ends the strips 16 are slotted longitudinally, as shown at 17, and the slots receive pins 14^a which project outward from the ends of the board 10 and which serve to guide the strips 16 and limit the movement of the strips. Behind and a little below the pins 14^a are pins 17^a, and to facilitate the measuring and placing of the paper on the board, the leaf 21 and the strips 16 may be swung upward with the leaf above the board or table, and by dropping the leaf a little the strips 16 will move downward far enough to bring their rear ends into engagement with the pins 17^a and the leaf will thus be supported in its raised position. When the leaf is to be lowered, it is first raised so that the strips 16 will clear the pins 17^a, and then swing forward and downward. The front ends of the strips 16 are reduced, as shown at 18, and to these ends are pivoted the curved arms 19 which are formed on the ends of the binding strips 20 which are secured to the leaf 21. The pivots just referred to thus form the hinges of the leaf, and the construction of the arms 19 permit the leaf to lie flatwise on the board or table 10 so as to bind the paper in place between the leaf and the board, or the leaf may be dropped downward out of the way, as shown by dotted lines in Fig. 3.

The front edge of the leaf 21 is perfectly straight at the point next the board 10 and the face is beveled, as shown at 22 in Fig. 4. The leaf 21 has longitudinal recesses 23 at its outer end and upper edges as it lies upon the board 10, and the outer edges of the leaf are also provided with metal strips 24 which guard against excessive wear. The recesses 23 are adapted to receive rollers 25 which are held beneath a sliding carriage 26 and the wear strips 24 project slightly over the recesses so as to prevent the rollers from being raised and the carriage from being accidentally detached as it is pushed along the leaf.

The leaf is also provided at its free edge and on its upper side, when it lies upon the table or board, with a longitudinal rack 27 which is adapted to engage a cog wheel 28 on the shaft 26^a in the handle frame of the carriage 26, and consequently when the carriage is pushed over the leaf the cog wheel and shaft will be revolved and motion imparted to the cutter on the shaft, as described below.

The shaft 26^a is supported between screws 28^a which project through opposite sides of the carriage. The carriage 26 is preferably of a rectangular shape and is adapted to slide flatwise on the wear strips 24 and to facilitate its easy manipulation it is provided with a handle 29, on top, which handle has a base frame 30 which lies upon the carriage and is hinged at one edge to the carriage, as shown at 30^a in Fig. 1. As the frame 30 carries the driving gear of the carriage, the latter may be thrown out of gear so as not to operate its cutter by simply swinging the frame 30 upward. The frame 30 has depending sides 30^b to support the ends of the shaft 26^a, see Fig. 1. The opposite or free edge of the carriage consists of parallel side pieces which are adapted to lie in recesses or mortises 31 in the carriage 26, as shown best in Fig. 3. On the front side of the carriage and formed integral with the handle 29 is an arm 32 which extends vertically downward and opposite the front edge of the board 10, this arm being separated from the body portion of the carriage by a space wide enough to receive the cutters 34 and 35 which are adapted to be pushed along at the free edge of the board and leaf and which, by their rotation, cut the paper.

The arm 32 is curved, as shown at 33, at a point opposite the junction of the cutters, and this curved portion is beveled on the outside, as shown at 33^a in Fig. 6, so as to cause the paper shavings to pass readily out at one side of the machine, as shown in Fig. 1. The cutters 34 and 35 are in the form of thin disks with cutting edges, as shown best in Fig. 3, and the lower disk 34 is pivoted at the lower end of the arm 32, as shown at 34^a in Fig. 1, so that it does not turn except by friction with the paper and the cutter 35. The cutter 35 is carried by the shaft 26^a, and when the carriage 26 is pushed along the table, the shaft is rapidly revolved by the gear mechanism described, so that the disk 35 also rotates rapidly, and as the cutting edges of the disks overlap slightly the paper is smoothly cut.

The disks 34 and 35 are arranged so that their meeting edges come opposite the upper edge of the board 10, and the disks are thus brought into the correct position for cutting the paper. When the carriage is to be moved without operating the disks, the handle 29 is tipped back, as shown by dotted lines in Fig. 1, and the disk swung upward above the board and leaf. When the board is to be used for pasting in the ordinary way, the car-

riage is removed from the leaf 21 by slipping the carriage off the end of the leaf and the latter is swung downward beneath the board, as shown by dotted lines in Fig. 2.

The carriage may be easily removed as the grooves for the carriage rollers run the entire length of the leaf.

The apparatus is used in the following way:—When the paper, which has been pasted, is to be cut, it is laid lengthwise upon the board 10 with the edge to be severed protruding beyond the edge of the board, and the leaf 21 is swung upward so as to drop over upon the paper. The carriage is then placed in position upon the leaf, one end of the paper inserted between the cutters 34 and 35, and the operator grasps the handle 29 and pushes the carriage quickly the whole length of the leaf 21. As the carriage is pushed the cog wheel 28 is turned by its connection with the rack 27 and the rapidly rotating cutter 35 together with the lower cutter 34, smoothly severs the paper.

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

1. A combined board and cutter, comprising a leaf or support having a longitudinal track and rack thereon, a carriage held to slide on the track, a handle frame hinged to the carriage, the frame having a depending arm at one end, cutters carried by the arm, a transverse shaft journaled in the frame and adapted to carry one of the cutters, and a cog wheel secured to the shaft and held to engage the rack, substantially as described.

2. The combination with a straight edged leaf or support having a longitudinal rack thereon, of a carriage held to slide on the leaf and provided with an upwardly swinging portion, revoluble disk cutters mounted on the carriage and turning near the edge of the leaf, and a gear wheel mounted on the swinging portion of the carriage to engage the rack and drive the cutters, substantially as described.

3. A combined board and cutter, comprising a board or support, a swinging leaf hinged to the board, a carriage held to slide on the leaf, a handle frame hinged to the carriage, cutters carried by the frame and arranged opposite the free edge of the leaf, and a gear mechanism for revolving the cutters by the movement of the carriage, substantially as described.

4. A combined board and cutter, comprising a flat board, end strips adapted to slide on the board and swing vertically, a straight edged swinging leaf hinged to the end strips and adapted to fold upon the board, abutment pins secured to the board in the paths of the end strips, a carriage held to slide upon the leaf, revoluble cutters mounted on the carriage and arranged opposite the outer edge of the leaf and board, and a gear mechanism for rotating the cutters by the movement of the carriage, substantially as described.

5. The combination, with the swinging leaf having the gear track thereon, of the carriage held to slide on the leaf, the vertically swinging frame hinged to the carriage and provided with a handle and a depending arm extending opposite the edge of the leaf, the arm having a beveled edge and a cutting disk pivoted near its lower end, a transverse shaft journaled on the swinging frame, a cutter car-
ried by the shaft and arranged to turn opposite the cutter on the depending arm, and a gear wheel on the shaft adapted to engage the gear track on the leaf, substantially as described.

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Witnesses:

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