

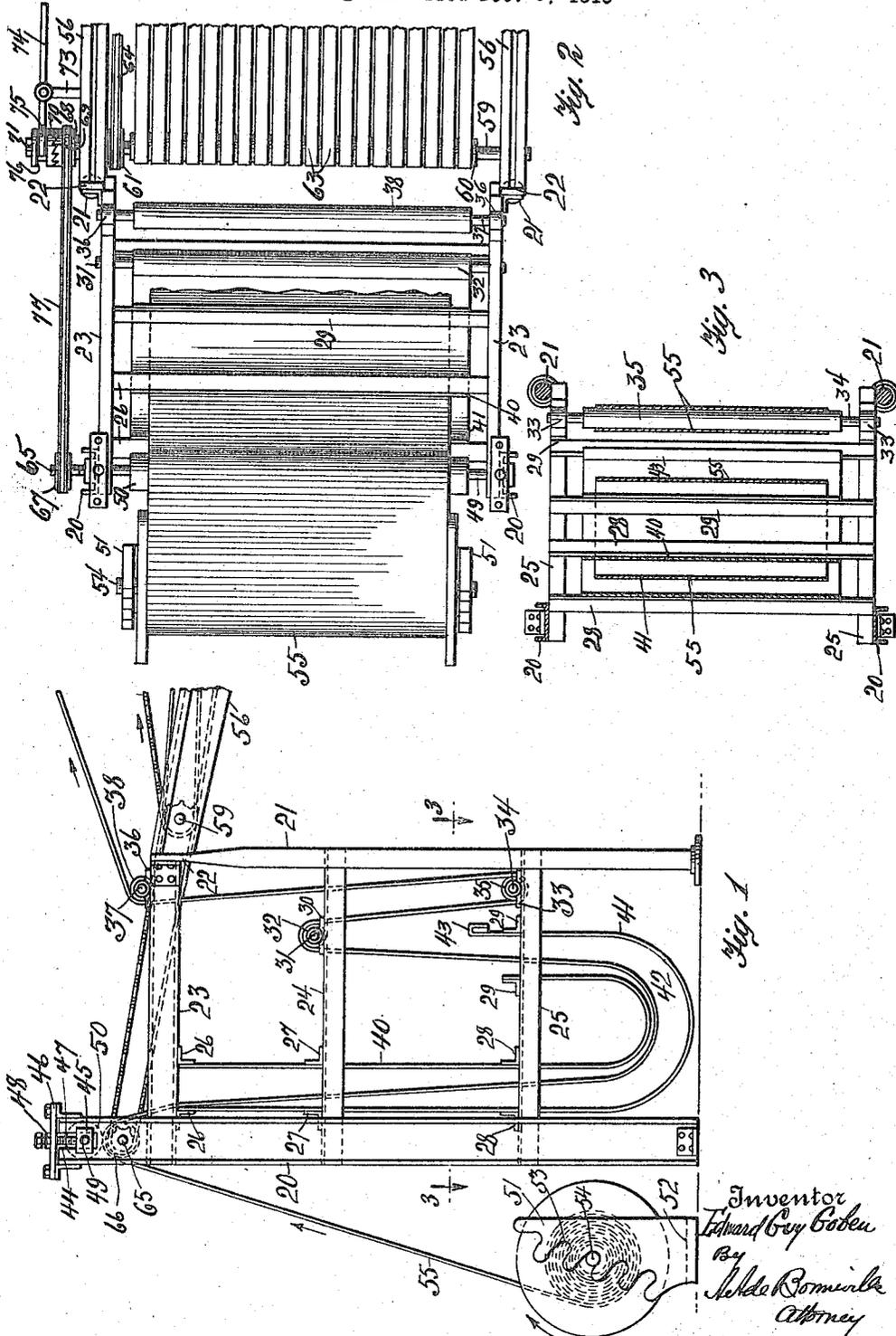
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E. G. GOBEN

ADJUSTABLE FEEDING APPARATUS

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE FEEDING APPARATUS.

Original application filed December 8, 1919, Serial No. 343,391. Divided and this application filed June 3, 1921. Serial No. 474,863.

To all whom it may concern:

Be it known that I, EDWARD GUY GOBEN, citizen of the United States, and resident of New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in an Adjustable Feeding Apparatus, of which the following is a specification.

This invention relates to an adjustable feeding apparatus and is a division of my patent application for cutting machine for cloth and other material filed December 8, 1919, Serial Number 343,391. Its object is the production of such an apparatus whereby sheets of cloth or other material can be fed therethrough, and in which the amount of material fed can be manually varied or stopped at the will of the operator.

A second object of the apparatus is the production of means, whereby the material fed therethrough can be observed by the operator. The amount of such material operated upon depends somewhat on its thickness, smoothness of surface and consistency, requiring manual means to control its speed through the apparatus.

In the accompanying drawings Fig. 1 represents a side elevation of an exemplification of an adjustable feeding apparatus with a fragmentary portion of a cutting machine with which it is adapted to operate; Fig. 2 shows a top plan view of Fig. 1 and Fig. 3 is a section of Fig. 1 on the line 3, 3.

A frame of the feeding apparatus is indicated with the pair of channel iron columns 20 and the pair of circular columns 21, the upper ends of the latter being flattened at 22. A pair of channel irons 23 connect the upper ends of the columns 20 and 21, and pairs of angle irons 24 and 25 also connect the said columns. One of each pair of the angle irons 24 and 25 is below and in line with one of the channel irons 23, and the other angle irons 24 and 25 of each pair are below and in line with the other channel iron 23. A pair of angle irons 26 is connected to the lower faces of the channel irons 23. Angle irons 27 are connected to the upper faces of the angle irons 24 and are in line with the angle irons 26. Angle irons 28 are connected to the upper faces of the angle irons 25 and are in line with the angle irons 27. A pair of angle irons

29 are also fastened to the upper faces of the angle irons 25. A pair of journal bearings 30 are located upon and fastened to the angle irons 24. A shaft 31 is journaled in the journal bearings 30 and has fastened thereto the guide roller 32. Journal bearings 33 are fastened to the angle irons 25. A shaft 34 is journaled in the journal bearings 33 and has fastened thereto the guide roller 35. Journal bearings 36 are fastened to the channel irons 23. A shaft 37 is journaled in the journal bearings 36 and has fastened thereto the guide roller 38.

A U-shaped trough with the inner wall 40 and the outer wall 41 is fastened to the angle irons 26, 27, 28 and 29. The trough is open at its sides as indicated at 42, and the outer wall 41 is extended at its outlet end as indicated at 43.

In the top ends of the columns 20 are formed guides 44 for the adjustable cross heads 45. Caps 46 are secured to the top ends of the columns 20 and have in threaded engagement the screws 47 that bear upon the cross heads 45. The said screws are locked in place by means of the lock nuts 48. The cross heads 45 have journaled therein the shaft 49 and the latter has attached thereto the upper feed roller 50.

A pair of shaft brackets 51 are connected by the foot plate 52 and have formed therein a plurality of pairs of bearings 53. The brackets 51 are located adjacent to the columns 20. A shaft 54 which has wound thereon a long sheet of cloth 55 can be supported on the various pairs of bearings 53.

A fragmentary portion of similar supporting beams 56 are provided for the cutting machine that may be used with the trough as described in my patent application Serial Number 343,391, filed December 8, 1919, hereinbefore referred to.

A roller shaft 59 is journaled in the supporting beams 56 and has fastened thereto the roller 60 and the sprocket chain wheel 61. Endless conveyer bands 63 extend around the roller 60 at one end and around rollers, not shown, at their other ends. A sprocket chain 64 extends around the chain wheel 61 and sprocket chain wheels, not shown, of the said cutting machine. The chain 64 transmits rotation to the shaft 59. A shaft 65 is journaled in the upper portion of each of the columns 20 and has fas-

tened thereto the feed roller 66. On the shaft 65 is fastened a sprocket chain wheel 67 and on the roller shaft 59 is journaled a sprocket chain wheel 68 having formed therewith one member 69 of a clutch. A second member 70 of the clutch is supported on the shaft 59. A spline 71 of the usual construction is interposed between the shaft 59 and the clutch member 70. A bracket 73 extends from one of the supporting beams 56 and has pivoted thereon the operating handle 74 with the forked end 75. The latter engages the groove 76 of the clutch member 70. A sprocket chain 77 connects the sprocket chain wheels 67 and 68. The rotations of the shaft 59 are transmitted to the shaft 65 through the sprocket chain 77 and the clutch just described. The wheel 67 is slightly smaller in diameter than the wheel 68 and therefore the wheel 67 rotates somewhat faster than the wheel 68. The rotation of the sprocket chain wheel 68 is controlled by the operator, by means of the operating handle 74.

When operating the feeding apparatus, the shaft 59 is turned by means, not shown, of the cutting machine whereby the conveyer bands 63 are moved to take and convey the material that is fed by the trough, after being cut by means, not shown. The rotation of the shaft 59 is transmitted to the shaft 65 through the clutch members 69 and 70 and thereby the sheet of cloth 55, or other material operated upon, is unwound from the roll on the shaft 54 and delivered into the trough. During the charging of said trough with said cloth it is at the same time pulled therefrom by the cutting machine over the guide roller 38. The quantity of cloth delivered to the trough depends upon the speed of the element of the cutting machine coacting therewith, and the diameters of the sprocket chain wheels 67 and 61 are such that the cloth is delivered to the trough at a somewhat greater speed than the speed at which it is pulled therefrom, by virtue of which undue strains and pulls on the material operated upon are prevented during its movements through the trough. The sheets are kept loose in the trough and the banking of the material or cloth therein has the advantage of allowing the cutting machine to run on while a fresh roll of fabric is located with its shaft 54 in the bearings 53. If too great an accumulation of cloth or other material collects in the trough, the operator disengages the clutch members 69 and 70 for a short period

of time and thereby stops the rotations of the shaft 65. By this means the sheet 55 is stopped from unwinding the material from the roll on the shaft 54.

The sheet of material as it unwinds from the shaft 54 passes between the feed rollers 50 and 66, from thence into and through the trough and then over the guide roller 32. The sheet then passes under the guide roller 35 and from the latter over the guide rollers 38 to the cutting machine, not shown.

Various modifications may be made in the construction of the apparatus within the spirit of the claims, and the present exemplification is to be taken as illustrative and not in a limiting sense.

Having described my invention what I desire to secure by Letters Patent and claim is:

1. In a feeding apparatus the combination of a trough, feed rollers to feed a sheet of material into the trough, the trough adapted to guide said sheet through and from the trough, a rotating shaft journaled adjacent to the trough, a clutch connected to the shaft, a sprocket chain wheel connected to one member of said clutch, a sprocket chain wheel for one of said feed rollers, a sprocket chain connecting the two sprocket chain wheels and means to manually actuate the clutch.

2. In a feeding apparatus the combination of a frame, a trough supported in the frame, a shaft journaled adjacent to one end of the trough, a feed roller fastened to said shaft, a sprocket chain wheel fastened to the shaft, a second feed roller coacting with the first feed roller, adjusting means for the second feed roller, a guide roller adjacent to the other end of the trough, the feed rollers adapted to feed a sheet of material into the trough and the guide roller adapted to guide said sheet when pulled from the trough, a roller shaft journaled adjacent to the guide roller, a sprocket chain wheel having one member of a clutch connected thereto journaled on the roller shaft, a sprocket chain connecting the sprocket wheels, a second member of said clutch supported on the roller shaft, a spline interposed between said roller shaft and said second clutch member and an operating handle for the second clutch member pivoted adjacent thereto.

Signed at New Orleans in the parish of Orleans and State of Louisiana this 16th day of May, A. D. 1921.

EDWARD GUY GOBEN.