

April 1, 1952

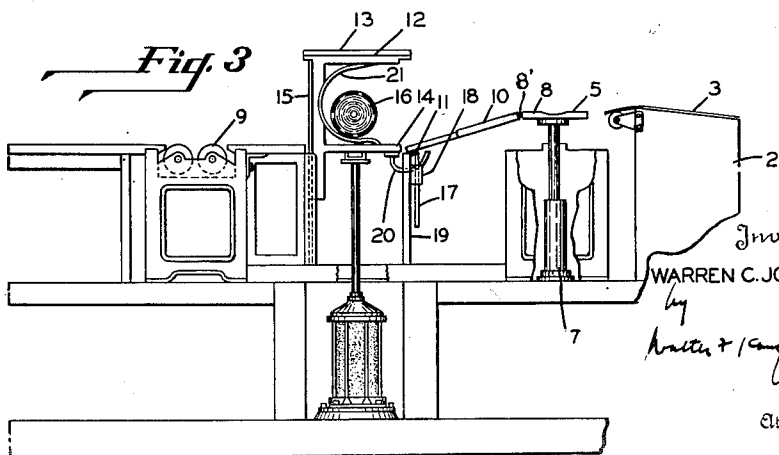
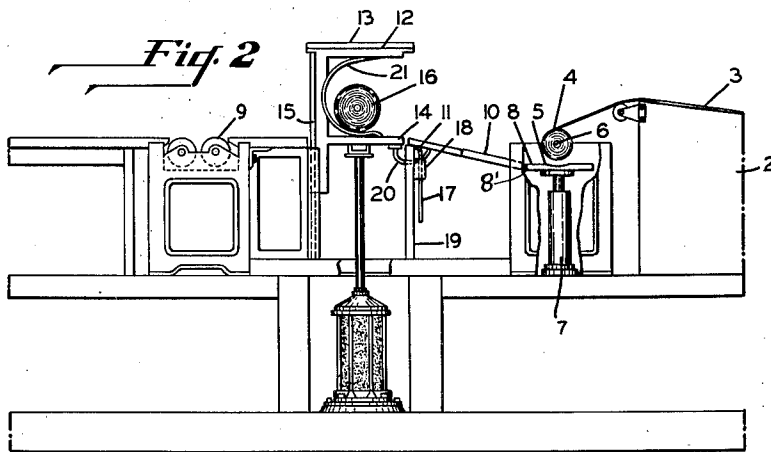
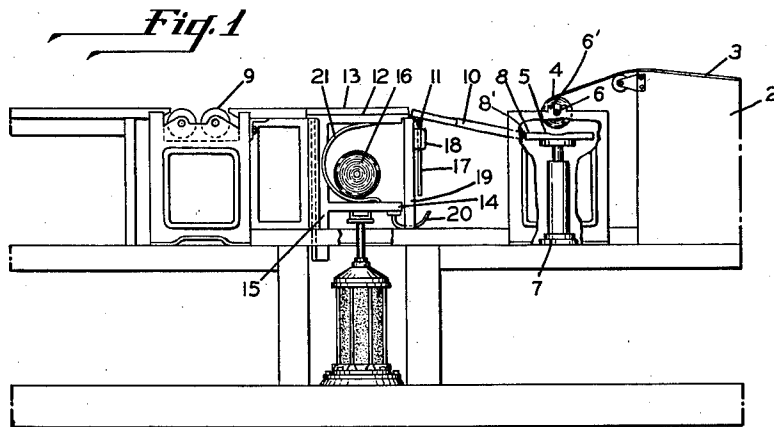
W. C. JOHNSON

2,590,865

REMNANT ROLL HOUSING AND LIFT

Filed June 28, 1950

2 SHEETS—SHEET 1



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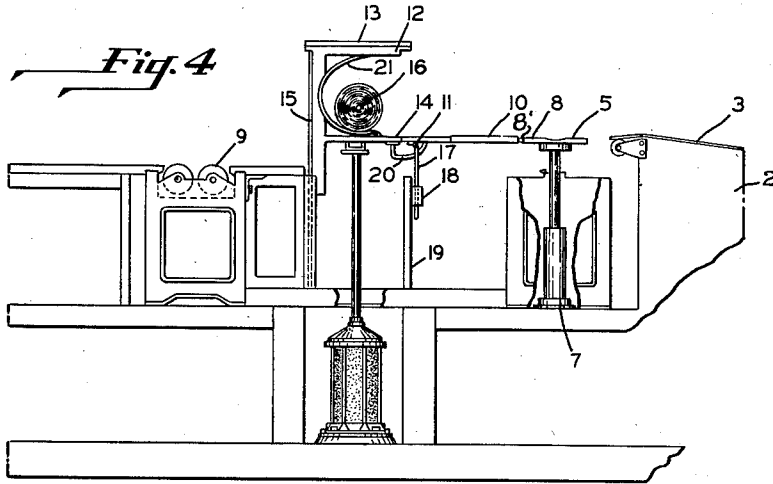
W. C. JOHNSON

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REMNANT ROLL HOUSING AND LIFT

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2 SHEETS—SHEET 2



INVENTOR
WARREN C. JOHNSON

W.C.
Halter + Company

ATTORNEY

UNITED STATES PATENT OFFICE

2,590,865

REMNANT ROLL HOUSING AND LIFT

Warren C. Johnson, Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

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7 Claims. (Cl. 242-58)

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This invention relates to a remnant roll housing and more particularly to a remnant roll housing in which the remnant roll is housed in an elevator, the top of which forms a portion of the inspection table regularly used in inspecting and wrapping sheet materials.

In inspecting sheet material such as floor and wall covering it is frequently necessary to cut relatively short sections of perfect material which are positioned between rejected sections of material on a continuous sheet. These short sections of perfect material are rolled on a remnant roll, sometimes three or four pieces being placed on the same roll, depending upon the length of the individual pieces.

While inspecting sheet material in the past, it has been found necessary to cut out the short pieces, roll them individually, and stand them aside. When a sufficient number of short pieces were on hand, they were unrolled, reinspected, and then rolled on remnant rolls. The number of pieces per roll varied, depending upon the size of the pieces. This was an extra operation in the inspection of sheet material.

In order to overcome the disadvantages outlined above in the inspection, rolling, and packaging of sheet material, the device illustrated and described herein was developed.

An object of this invention is to provide an elevator for storing a remnant roll, the top of said elevator forming a portion of the inspection table surface during the normal use of the inspection table.

Another object of this invention is to provide a storage space for remnant rolls in which the roll is convenient for use when necessary but does not interfere with the workman.

A still further object of this invention is to provide an arrangement whereby short remnant pieces of sheet material are inspected when encountered, rolled, wrapped, and labelled, thereby eliminating the necessity for performing the subsequent operation of inspecting, wrapping, and labelling.

In order that my invention may be more readily understood, it will be described in connection with the attached drawing in which:

Figure 1 is a diagrammatic view of the roll-up end of a sheet material inspection table with the remnant storage elevator in its down or inoperative position;

Figure 2 is a diagrammatic view similar to Figure 1 except that the elevator is in a partially raised position so that the remnant roll is accessible for adding an additional piece of material thereto;

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Figure 3 is a diagrammatic view similar to the other views showing the elevator in its partially raised position, and the roll-up stand is in its raised position; and

Figure 4 is a diagrammatic view showing the elevator in its fully raised position with the roll-up stand also in its raised position.

Referring to Figure 1 there is shown an inspection table 2 over which the sheet material 3, such as floor or wall covering of the linoleum type, passes while it is being visually inspected for defects. The numeral 4 designates a roll of linoleum on a roll-up device 5 on which the material is rolled after it has been inspected. The bearing 15 for supporting the spindle 6 of the roll is shown at 6'.

The roll-up stand 5 is on a hydraulic lift 7 so that the finished roll of sheet material can be lifted from the roll-up bearings 6' and removed from the roll-up device. This is accomplished by the platform 8 on the top of the hydraulic lift engaging the roll of sheet material and lifting it from the bearings. Figures 1 and 2 show the roll 4 in its position with respect to the platform 8 when the roll is supported in the bearings.

When the spindle 6 passes through the center of the roll 4 supported in the bearings of the roll-up device, the roll is lower than the portion of the table between the roll-up device and the wrapping device 9. In order that the finished roll may be easily rolled by hand from the roll-up device 5 to the wrapping station 9, the section of the table 19 disposed immediately adjacent the roll-up device 5 is attached to the roll-up stand by means of a hinge-joint 8' so that, as the roll-up device is raised and lowered, the end of the table 10 is raised and lowered, pivoting about a hinge-joint 11 on the other end of the table 10.

Disposed between the roll-up device 5 and the wrapping device 9 is an elevator 12, the top 13 of which forms a portion of the table surface between the roll-up device 5 and the wrapping device 9 when the elevator is in its lowered position. Below the top surface 13 of the elevator 12 there is provided a shelf 14. The top 13, shelf 14, and guide surface 15 of the elevator define a chamber suitable for storing an auxiliary or remnant roll 16 of the sheet material on which the short remnant pieces are rolled. The elevator 12 may be hydraulically operated. However, it will be understood that any other means may be used for operating the elevator.

In order that the roll of sheet material 16 may be conveniently transferred from the elevator 12 to the roll-up device 5, it is necessary that the elevator be capable of rising as high as the roll-

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up device 5 when the same is in its upper position. This is necessary because, if the sheet material in the roll 16 is linoleum or the like, it is too heavy to roll up the inclined surface 10 by manual force. To overcome this difficulty the table portion 10 is mounted in slide bearings at the side adjacent the elevator. Attached to the bottom of the table by means of hinge-joints is a pair of rods or pins 17 which pass through the bearings 18 secured to the table support 19. Attached to the bottom shelf 14 of the elevator 12 is a pair of hooks 20 which engage the underneath portion of the table 10 and raise it with the elevator until the table portion 10 is level. When this condition exists, the roll 16 is easily rolled by hand from the elevator 12 to the roll-up device 5. Figure 3 shows the roll-up device 5 in its upper position and the elevator 12 raised to the point that the hooks 20 engage the under portion of the table 10. Figure 4 shows the elevator 12 in its uppermost position with the portion 10 level between the elevator and the roll-up device 5.

The interior of the remnant roll housing of the elevator 12 is lined with a sheet material lining 21 which is rounded to prevent the roll from being damaged by striking the sides of the housing.

In the operation of this device, when a short piece of perfect material is encountered between defects in a continuous piece of sheet material, the short piece is rolled on a remnant roll. To accomplish this operation using the present invention, the roll-up device 5 is elevated to its top position for removal of the completed roll of material. In order to have access to the remnant roll, the elevator 12 is raised to the position shown in Figure 4. The raising of the elevator 12 also raises the end of the table 10 which is engaged by hooks 20 which raise the pins 17 in the slide bearings 18. The remnant roll is rolled from the housing formed in the elevator over the table 10 to the roll-up device 5. The roll-up device is lowered so that the spindle in the center of the remnant roll rests in the bearings on the roll-up device 5. After the remnant has been placed on the roll, the roll-up device is again elevated to remove the spindle from the bearings. If it is desired to return the remnant roll to the elevator, the roll is rolled across the portion 10 into the housing and the elevator lowered. When the elevator is lowered, the end of the table 10 drops again until it engages the support 19 at which point the dropping of the table stops and the elevator continues its downward movement until the top of the elevator is even with the end of the portion 10.

If the remnant placed on the roll is the last remnant to be placed on that particular roll, the elevator is lowered before the roll is removed from the roll-up device 5 and the roll is rolled from the roll-up device 5 onto the wrapping device 9. This arrangement corresponds to that shown in Figure 3, except that the elevator is in the down position.

It will be clear from this disclosure that I have developed a remnant elevator in which the remnant roll is kept convenient to the roll-up device during the inspection and wrapping operation. However, the remnant roll is fully out of the way of the workman and, therefore, does not interfere in any way with the normal functioning of the inspection operation.

I claim:

1. In a device for rolling and packaging sheet material such as floor and wall coverings, the

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elements comprising an inspection table, a roll-up device positioned at one end of the table, a wrapping station positioned beyond the roll-up device, an elevator positioned between the roll-up device and the wrapping station, said elevator comprising a storage compartment for storing a roll of sheet material, and means for raising and lowering said elevator to make said partial roll accessible.

2. In a device for rolling and packaging sheet material such as floor and wall coverings, the elements comprising an inspection table, a roll-up device positioned at one end of the table, an elevator positioned adjacent said roll-up device, the top of said elevator forming a flat surface over which rolls of sheet material may be rolled from the roll-up device when the elevator is in its lowermost position, and an auxiliary roll housing located in said elevator so that the auxiliary roll is easily accessible when the elevator is raised.

3. In a device for rolling and packaging sheet material such as floor and wall coverings, the elements comprising an inspection table, a roll-up device positioned at one end of the table, a portion of the table adjacent the roll-up device comprising an elevator, the top of which forms a flat surface over which rolls of sheet material may be rolled from the roll-up device, a storage compartment in said elevator for storing a roll of sheet material, and means for raising and lowering said elevator.

4. In a device for rolling and packaging sheet material such as floor and wall coverings, the elements comprising an inspection table, a roll-up device positioned on the table, an elevator positioned in the proximity of the roll-up device, the top of said elevator forming a flat surface over which rolls of sheet material may be rolled from the roll-up device, a table portion between the roll-up device and the elevator provided with a hinge-joint adjacent the roll-up device and a hinge-joint adjacent the elevator, means for raising and lowering the roll-up device, and means for raising and lowering the elevator.

5. In a device for rolling and packaging sheet material such as floor and wall coverings, the elements comprising an inspection table, a roll-up device positioned on the table, an elevator positioned in the proximity of the roll-up device, the top of said elevator forming a flat surface over which rolls of sheet material may be rolled from the roll-up device, a table between the roll-up device and the elevator provided with a hinge-joint adjacent the roll-up device and a hinge-joint adjacent the elevator, means for raising and lowering the elevator, and means on said elevator to engage the table adjacent the elevator to raise and lower the same.

6. In a device for rolling and packaging sheet material such as floor and wall coverings, the elements comprising an inspection table, a roll-up device positioned on the table, an elevator positioned in the proximity of the roll-up device, the top of said elevator forming a flat surface over which rolls of sheet material may be rolled from the roll-up device, a table between the roll-up device and the elevator provided with a hinge-joint adjacent the roll-up device and a hinge-joint adjacent the elevator, means for raising and lowering the roll-up device, means for raising and lowering the elevator, and means on said elevator to engage the table adjacent the elevator to raise and lower the same during a portion of the path of travel of the elevator.

7. In a device for rolling and packaging sheet

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material such as floor and wall coverings, the elements comprising an inspection table, a roll-up device positioned on the table, an elevator positioned in the proximity of the roll-up device, the top of said elevator forming a flat surface over which rolls of sheet material may be rolled from the roll-up device, a table between the roll-up device and the elevator provided with a hinge-joint adjacent the elevator, means provided in said elevator for storing a roll of sheet material, means for raising and lowering the roll-up device, and means for raising and lowering the elevator.

WARREN C. JOHNSON.

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The following references are of record in the file of this patent:

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