Nilson, Green & Milson.

Double Seaming Mach.

Patented April 1859.

Nº23735. Fig: 1. Witnesses. Southwalker Willenks

United States Patent Office.

JAS. WILSON, C. GREEN, AND WM. WILSON, JR., OF WILMINGTON, DEL.

IMPROVED DOUBLE-SEAMING MACHINE.

Specification forming part of Letters Patent No. 23,735, dated April 19, 1859.

To all whom it may concern:

Be it known that we, James Wilson, Charles Green, and William Wilson, Jr., of Wilmington, in New Castle county and State of Delaware, have invented a new and useful Double Seaming Machine; and we do declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a view of the machine; Fig. 2, a view of the different stages of the joint produced by the machine. Figs. 3, 4, 5, and 6

are different rollers.

Hitherto it has been possible to double-seam one end of a keg (metallic) by inserting a mandrel or other instrument suitable for the purpose. The object of our improved machine is to enable both heads to be double-seamed, which by the old process was impossible unless a large opening was left in one head.

This machine consists of a stand, A, a vertical shaft, B B, upon which are a tight and loose pulley, C C. Upon the lower end of this shaft is a metallic disk, D. A second disk, E, is placed directly under the disk D, and is connected with a treadle, F, by which it is elevated or depressed. At the upper end of this shaft is a spring or other suitable contrivance for the purpose of pressing the upper disk downward. A stand, G, supports a single burring-pulley, H, planing-down pulleys I, double burring-pulleys K, and a finishing-pulley, L.

The burring-pulley H is shown in Fig. 4. It consists of a small pulley-wheel, beveled upon its lower edge in such a manner that the flange upon the head of the keg may be bent upon the flange of the cylinder, as shown at

O in Fig. 2.

The planing-down pulleys I consist of two small pulley-wheels placed at right angles to each other, as shown in Fig. 6. Their use is to press the flange of the head bent down by the burring-pulley firmly upon the flange of the cylinder, as shown at P, Fig. 2.

The next operation is to push the double burring-pulleys inward, which bend the single seam just produced in the two proceding operations downward, causing it to form an acute angle with the side of the cylinder. This pulley being withdrawn, the finishing-

The double burring-pulleys K consist of two pulleys, as shown in Fig. 5. The upper and larger pulley-wheel, K, has a groove upon its edge, in which the smaller and lower pulley-

wheel, K", moves. The axis of this lower pulley-wheel is placed at an angle to that of the upper pulley-wheel. The use of this pair of pulley-wheels is to bend the joint produced by the two preceeding operations at an angle, as shown at Q in Fig. 2.

The finishing-pulley L consists of a single pulley-wheel, as shown in Fig. 3, having its edge grooved. Its function is to press the joint firmly upon the side of the cylinder, as

shown at R in Fig. 2.

The planing - down pulleys I, the double burring-pulleys K, and the finishing-pulley L are constructed in such a manner that they may be pushed in and out by means of a lever,

screw, or their equivalent.

The mode of using this machine is as follows: A cylinder of sheet-iron or any suitable substance is first made, either plane or corrugated, and provided with a flange upon its edge. Two heads are then struck by means of a die from a thin plate of metal. Upon these heads flanges are left double the width of those upon the cylinder. This cylinder, with the heads laid in a proper position, is then placed between the two disks D and E. By means of the treadle the lower disk_is___ pressed firmly upward, thus holding the cylinder tight between them. The cylinder is then made to revolve by the friction between it and the upper disk, to which the motive power is applied. All the wheels, with the exception of the burring-pulley, are then drawn back. The flange of the head is pressed downward, in order that the planing-down pulleys, which are next pushed inward, may press it firmly upon the flange of the head by the one pulley running above and the other running below the flange. The planing-down pulleys are then withdrawn. The next operation is to push the double seam just produced in the two proceding operations downward, causing it to form an acute angle with the side of the cylinder. This pulley being withdrawn, the finishingpulley is pressed inward, which presses this bent seam firmly against the side of the cylinder. The keg is then inverted and the other head fastened in the same manner. By these

means a double seam is produced on both ends of the keg.

Having thus described our improvement, what we claim as our invention, and desire to secure by Letters Patent, is—

The combination of the disks E and D and the burring-pulley H, the planing-down pulleys I, the double burring-pulleys K, and the

finishing-pulley L in the manner and for the purpose substantially as above described.

JAMES WILSON. CHARLES GREEN. WM. WILSON, JR.

Witnesses:
WM. BRECK,
JOSEPH WALKER.