(No Model.)

R. R. DELANEY.

ROOFING SEAMER.

No. 455,177. Patented June 30, 1891.

Fig. 1.

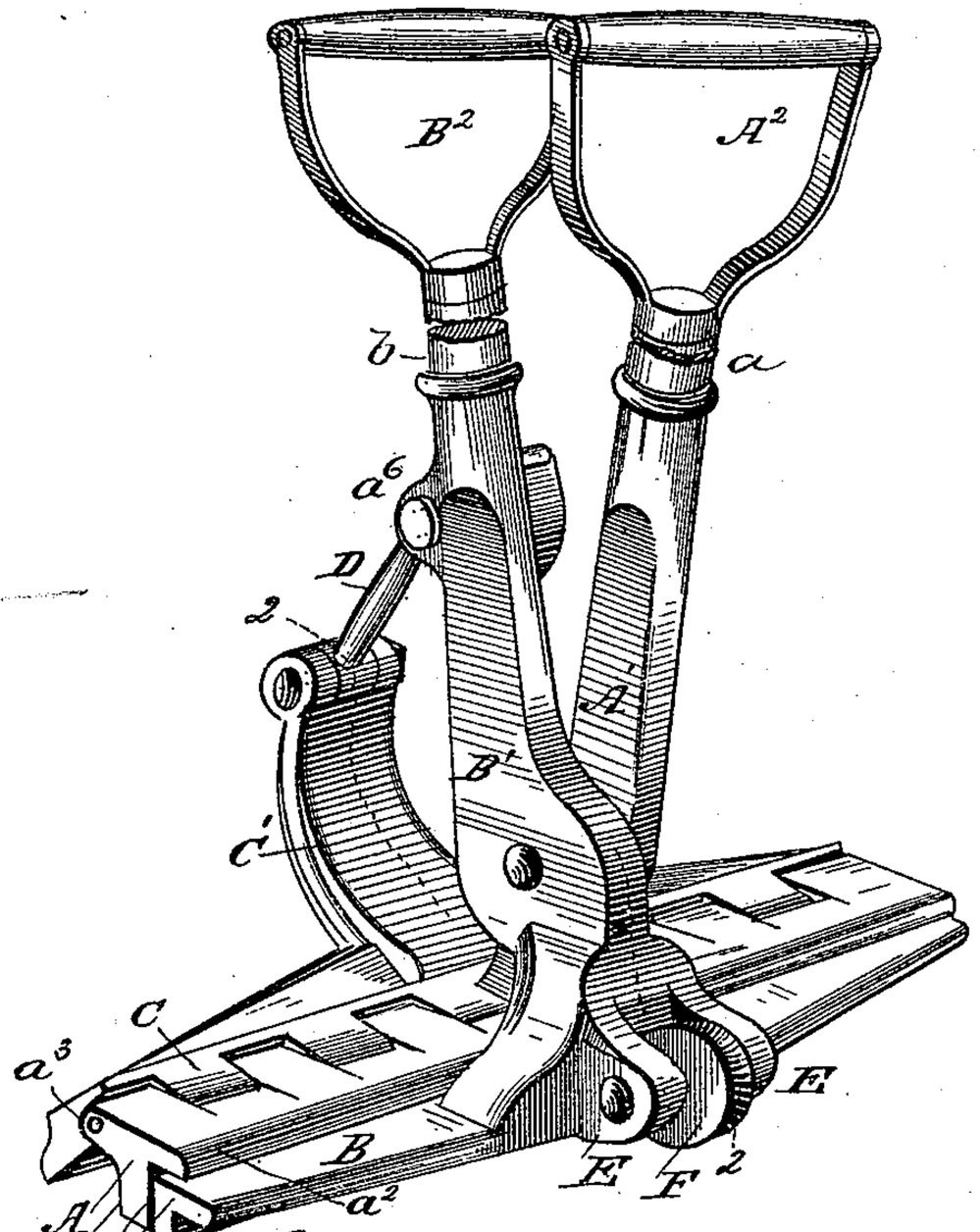


Fig. 2.

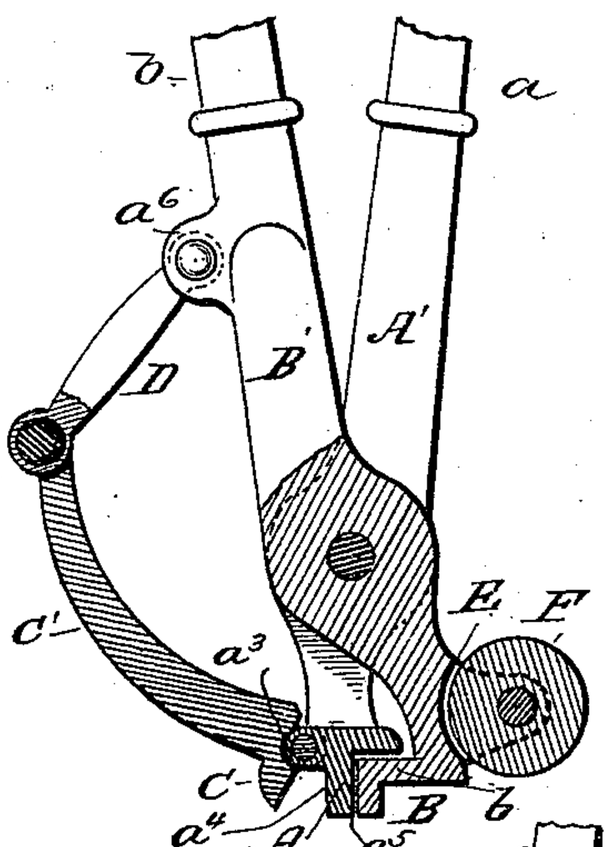


Fig. 3.

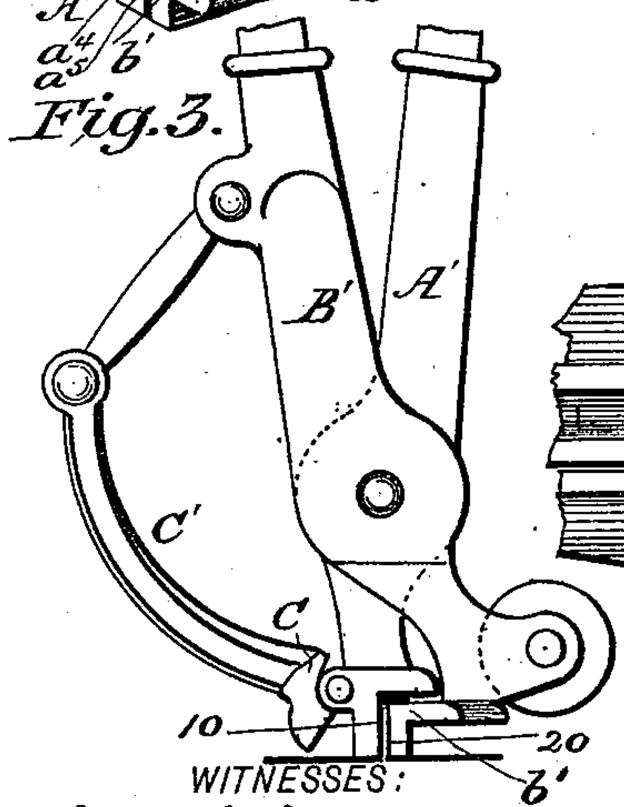


Fig. 4.

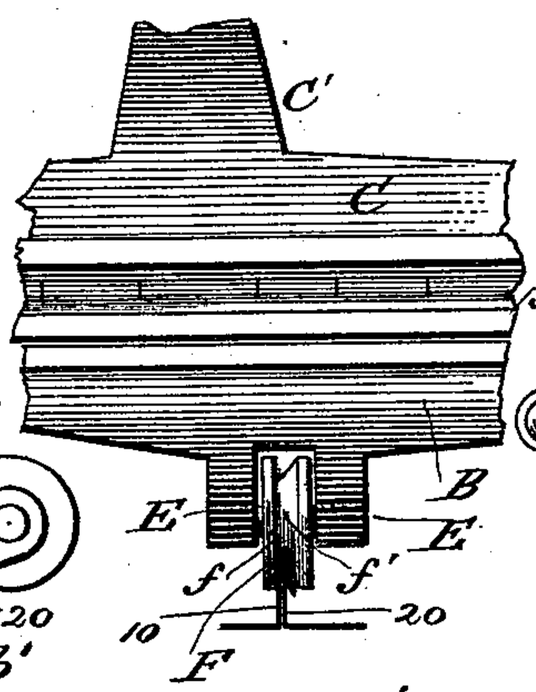
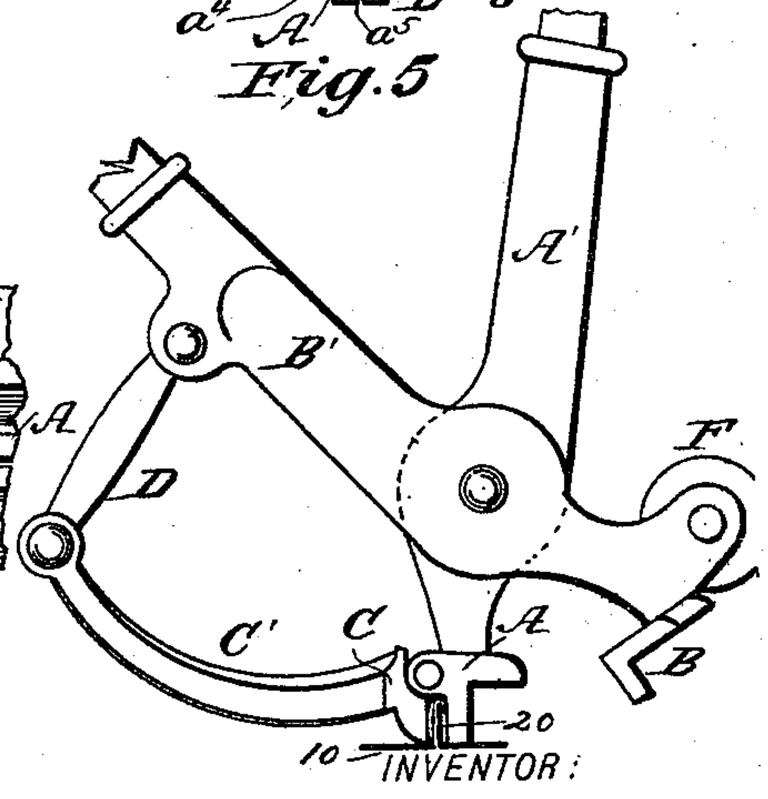


Fig. 5



WITNESSES:

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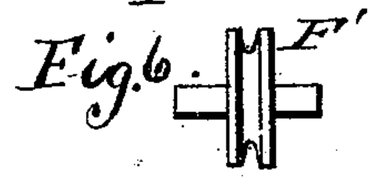
John C. Kenyon

Fig. 6.



INVENTOR:

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BY Munn & Co

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UNITED STATES PATENT OFFICE.

RICHARD R. DELANEY, OF CHARLESTON, WEST VIRGINIA.

ROOFING-SEAMER.

SPECIFICATION forming part of Letters Patent No. 455,177, dated June 30, 1891.

Application filed February 12, 1891. Serial No. 381,256. (No model.)

To all whom it may concern:

Be it known that I, RICHARD R. DELANEY, residing at Charleston, in the county of Kanawha and State of West Virginia, have invented certain new and useful Improvements in Roofing-Seamers, of which the following is a specification.

My invention has for its object to provide a roofer's seamer or seaming-tongs which are adapted for turning single or double seams, are convenient for use, may be made at a comparatively small cost, and are powerful and effective, so that the seams of heavy sheet metal, like tin, zinc, or galvanized iron, may be easily turned and clamped together.

My invention consists in the combination of a pair of tongs, three jaws connected therewith and operated thereby, and a roller journaled to one of the jaws, which serves to turn the edge of the seam down, ready to be clamped and finished by the tongs.

My invention further consists in the peculiar combination and novel arrangement of the several parts, all of which will hereinafter be fully described in the annexed specification, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved roofing-seamer. Fig. 2 is a transverse section thereof on line 2 2, Fig. 1. Fig. 3 illustrates the seamer clamping the ends of the metal and upsetting the longer end. Fig. 4 shows the seamer as turning the seam. Fig. 5 shows the seamer clamping the ends together to form a single seam; and Fig. 6 is a detail view, hereinafter referred to.

In the accompanying drawings, A indicates the main or abutment jaw, which is pivotally connected with the clamping-jaw B in the usual manner, said jaws A and B being formed with socketed tongs A′ and B′, in which are fitted the stems *a* and *b* of the hand-holds A^2 and B^2, as shown. The abutment-jaw A is formed at one edge with a right-angle projection a^2, under which the longitudinal member *b′* of the jaw B operates, and at its opposite edge with an outwardly-extending rib or extension a^3, having a convexed face, in which is hinged the folding-bar C, which operates against the face a^4 of the jaw A, which face, it will be seen is of a less height than the opposite or clamping-face a^5. The folding-bar C is formed with an upwardly and outwardly curved member C′, which is connected by means of a pivoted link D with an ear a^6 on the jaw-section B, as shown.

E E indicate apertured ears extended from the rear edge of the lower portion of the tongs B′, in which is journaled a grooved roller F, which is preferably formed with a groove having a straight part *f* and a beveled part *f′*, for a purpose presently explained.

The manner in which my improved seamer is used is clearly illustrated in Figs. 3, 4, and 5 of the drawings, by reference to which it will be seen that the ends of the metal are first clamped between the jaws A and B, the relation of such jaws being such that the long end 10 of the metal will be bent at right angles over the short end 20, as shown in Fig. 3. After the ends have been bent and pulled together in the manner stated the seamer is turned sidewise, with its grooved roller on the upper bent end 10, and pressure being applied thereto it is run along the entire length of the bent end, which operation serves to turn the end 10 over the end 20 to the position clearly shown in Fig. 4 of the drawings. It will also be noticed by reference to said figure that by making the groove in the roller with a straight edge *f* such edge forms a guide against the vertical edge of the metal, the bevel-face *f′* serving to turn said end 10, as stated. The machine is then turned and the bent end 10 and the end 20 are then clamped between the jaw A and the folding-bar C, which operation serves to complete the single seam.

It will be understood by reference to the drawings that the relation of the jaws A and B and the bar C with the tongs A′ and B′ is such that the jaws A and B will be operated to clamp the metal as the tongs are closed together, and the jaw A and the bar C operate to clamp the metal as the tongs are spread apart.

In the practical operation of my invention when it is desired to form a double seam, two of my improved seamer-tongs are provided,

one of which is formed with jaws one inch high, which serve to form the single seam, after which the said single seam is again folded in precisely the same manner as before by the other seamer, which has jaws of about three-fourths of an inch high.

While I prefer to employ a roller having a groove formed as stated, it is manifest that a roller formed with a regular groove (see F', Fig. 6) may be employed.

From the foregoing description, taken in connection with the drawings, it will be observed that I dispense with the foot-lever and operate all the jaws by the two tongs, thus providing a seamer which can be used on inclined roofs and on vertical metal-covered walls, where foot-operated machines cannot be employed.

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

1. The combination, with the pivoted clamping-tongs A' and B', arranged as shown, of a grooved roller journaled in one of the jaws and arranged for upsetting or turning the bent edge of the metal, as and for the purpose described.

2. The combination of the clamping-tongs A' and B', arranged as shown, of the pulley F, journaled in one of the jaws at right angle thereto, said pulley formed with circumferential groove having a straight portion f and beveled portion f', substantially as and for the purpose described.

3. A roofing-seamer consisting of a central jaw A, formed with clamping-faces a^4 and a^5 on its opposite sides, the clamping-jaw B, said jaws A and B formed with tongs pivotally connected, as shown, a folding-bar C, hinged to the outer edge of the central jaw A, the link-connection D between the bar C and the tongs of jaw A, and the grooved turning-roller journaled to the outer edge of the jaw B and arranged at right angles to the said jaw, all arranged substantially as and for the purpose described.

RICHARD R. DELANEY.

Witnesses:
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