

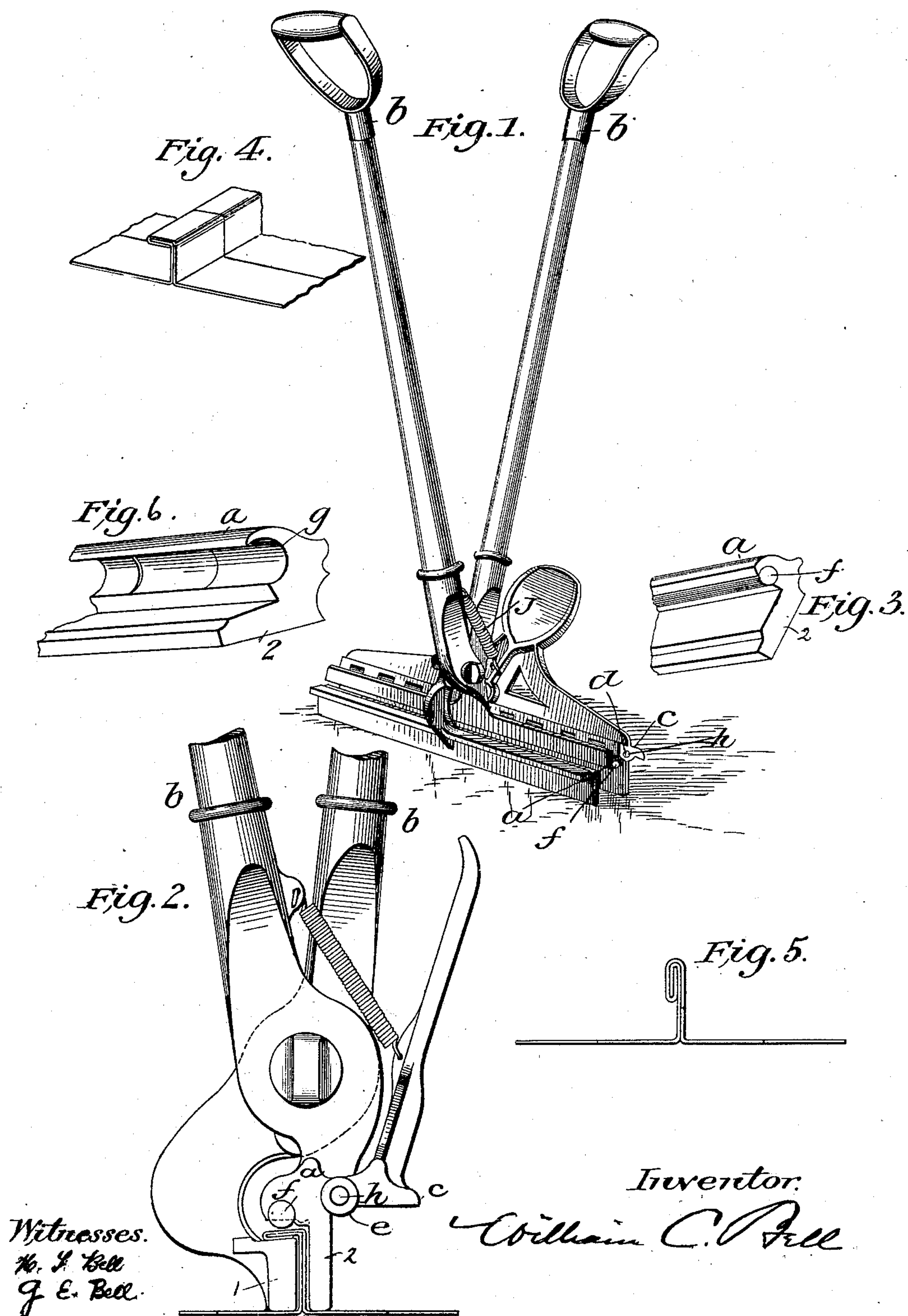
No. 679,719.

Patented Aug. 6, 1901.

W. C. BELL.
ROOFING SEAMER.

(Application filed Feb. 12, 1898.)

(No Model.)



Witnesses.
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ROOFING-SEAMER.

SPECIFICATION forming part of Letters Patent No. 679,719, dated August 6, 1901.

Application filed February 12, 1898. Serial No. 670,155. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. BELL, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Roofing-Seamers, of which the following is a specification.

My invention relates to improvements in the construction of seamers for standing seams, and has for an object, among other things, to produce a better seam without undue wear on the tool and without tearing or injuring the metal forming the seam.

Similar parts are indicated by the same letters and numerals in the present drawings.

Figure 1 is a perspective view of a pair of seamers, (two pairs constituting a set complete.) Fig. 2 is an end view of treadle-bar *c* with hinge *d*, spring *J*, hole *h*, (receptacle for hinge-rod,) flanging-jaw 2, roller in flange *a* in position over abutment-jaw 1 with flanged metal between; Fig. 3, a portion in perspective of jaw 2, showing the under side of flange *a*, with opening along its base, through which roller *f* projects; Fig. 4, cross-seams in the metal sheet, intersecting where the standing edges are partly folded, showing the third fold; Fig. 5, a finished seam, four folds complete; Fig. 6, a portion of flange *a* with a receptacle for roller *f* to turn in. Said receptacle is enlarged in places, so that roller *f* comes in contact with the sides of the receptacle only at intervals or at alternate spaces, thus relieving roller *f* from the friction of a continuous bearing. A portion of roller *f* extends below the base, as seen in Fig. 3, so that when the standing edges are between jaws 1 and 2 flange *a*, shutting over abutment-jaw 1, carries with it the upper portion of said edges in the process of forming the standing seams, roller *f* acting upon the upper portion of the flange. The design and advantage of roller *f* is to overcome the friction of a stiff and rigid flanging-jaw, and thereby avoid scraping and tearing the flange where cross-seams intersect, Fig. 4. With roller *f* the seam is left smooth and unmarred, and by said roller moving with the metal in the process of flanging, with less friction, it may be seen that in the adjustment and movement of jaws 1 and 2 less space can be left between flange *a* and the apex of jaw 1 and yet not deface

the metal when seaming, the effect of a closer movement of flange *a* over jaw 1 being to bend the flange of the seam more sharply over the apex of jaw 1 and with a greater tendency to flatten it upon the sloping surface of jaw 1, Fig. 2. Said "slope" on jaw 1 allows room for the flange to bend more than a square angle, and thus provides for the usual spring in metal sheets, so as to maintain a square angle when released from the folding jaws.

Jaws 1 and 2 are operated by handles *b b*, Fig. 1. Bar *c* is hinged to jaw 2, but a portion of said bar extends outward from hinge *d*, the projecting end adapted for a treadle by which bar *c* is closed against the adjacent face side of jaw 2, treadle *c* being lifted into position by spring *J*, Fig. 2.

I am aware of former patent in which treadle-bar *c* is used for closing down the flanges of standing seams, but in my invention, here, in forming lugs *e* of hinge *d* the folding face side of treadle-bar *c* is made to line with the under side of hole *h*, (when in position shown in Fig. 2,) instead of lining with the center thereof, and the adjacent face side of jaw 2 lines with the inside of hole *h*, Fig. 2. By this lateral construction the under face side of bar *c* is lowered nearly one-eighth inch closer to the work, so as to rest at the starting point closely upon the flange of the seam. It may be seen from this that where the operating-bar *c* is thus lowered to a position over the work, so that its least movement begins to bend the flange, greater power can be exerted with less movement of the treadle-bar *c*, avoiding all preliminary motion of bar *c* before acting upon said flange, which in actual use makes it possible to fold flanges that are narrow and irregular.

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

In a seaming-tool for roofing, an abutment-jaw and a folding jaw to cooperate therewith, a roller capable of free rotation in its bearings carried by said folding jaw and adapted to engage the seam, all substantially as shown and described.

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Witnesses:

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