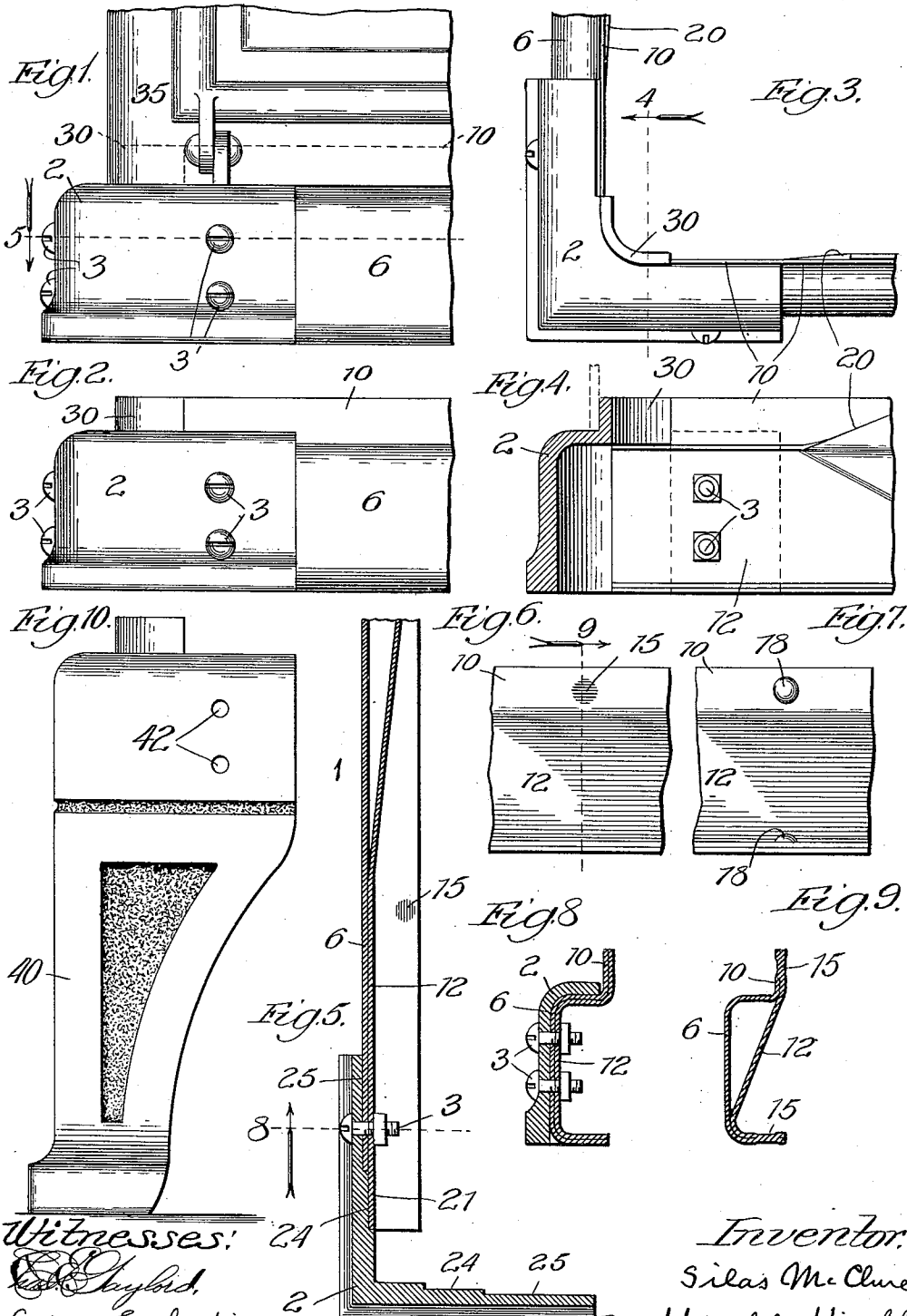


S. McCLURE.  
STOVE.

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1,071,561.

Patented Aug. 26, 1913.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

SILAS McCLURE, OF BEAVER DAM, WISCONSIN, ASSIGNOR TO MALLEABLE IRON RANGE COMPANY, A CORPORATION OF WISCONSIN.

STOVE.

1,071,561.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, SILAS McCLURE, a citizen of the United States, residing at Beaver Dam, in the township of Beaver Dam, Dodge county, Wisconsin, have invented new and useful Improvements in Stoves, of which the following is a specification.

In the construction of an ordinary stove or range, which is usually made in parts and afterward bolted and riveted together, it is necessary to provide a strong and rigid base frame for supporting the other parts of the complete stove, and to which may be secured the stove legs, if the stove is provided with legs.

In the art of stove manufacture, economy is desirable, and attempts have heretofore been made to construct cheap and efficient base frames of cast iron and cast steel, and also of sheet metal rolled and pressed into shape; but thus far without success, as the former have been found too brittle for the rough handling which stove parts often undergo, and the latter have been found too frail for the hard usage required.

The present invention contemplates a rectangular base frame for stoves and ranges which answers all the requirements of a practical base frame, with none of the defects of those heretofore constructed, and which is at the same time cheap and economical in manufacture. Such a frame is illustrated in the accompanying drawings, in which:

Figure 1 is a fragmentary view in elevation, showing a corner portion of the frame with the stove body supported upon it. Fig. 2 is a similar view showing the frame alone. Fig. 3 is a top plan view. Fig. 4 is a vertical section on the line 4 of Fig. 3. Fig. 5 is a horizontal section on the line 5 of Fig. 1. Fig. 6 is a view in elevation of a portion of the frame viewed from the inside. Fig. 7 is a view similar to Fig. 6 but showing a slightly modified form of the device. Fig. 8 is a vertical section on the line 8 of Fig. 5. Fig. 9 is a vertical section on the line 9 of Fig. 6. Fig. 10 is a view in elevation of a different form of stove leg comprising a part of the device.

As shown in said drawings the improved base frame comprises horizontal frame rails or sills 1 which are placed together to form a rectangle and joined at their ends by cor-

ner members 2 to which they are bolted by means of bolts 3. Each of the horizontal rails or sills 1 is made of two long, narrow strips of sheet metal which are shaped as follows: One of them, being the outer one and designated as the part 6, which is best shown in Fig. 9, is rolled throughout its entire length in the form of a channel section with rounded corners, comprising a vertical web portion and parallel, horizontal lower and upper flanges; the latter being quite wide and bent upward through a rightangle to form in addition a vertical flange 10. A second member, designated as the part 12, is rolled throughout the greater part of its length in the form shown in cross section in Fig. 9, and comprises a horizontal flange which is superposed upon the base flange of the part 6 and a vertical part superposed upon the vertical flange 10; the intermediate part extending diagonally from one to the other. This intermediate part therefore forms an inner diagonal web for bracing and stiffening the channel member 6, and the two parts 6 and 12 form a tubular rail of triangular cross-section; which is the shape of the base rail as viewed in cross sections taken throughout the greater part of its length. The two members 6 and 12 are joined together, preferably by electric welding, at intervals along the lengths of their coinciding parts, as indicated at 15, but if desired they may be riveted or otherwise joined, as indicated at 18 in Fig. 7. Near the ends of the rails the shape of the inner member 12 is gradually modified until a short length at each end partakes of the same shape as the outer part 6 and the adjacent surfaces of the two parts coincide; except that the top vertical flange is omitted from the inner member, which is narrowed by cutting away its top, as indicated at 20. The inner member 12 is also somewhat longer than the outer member 6 and extends at each end beyond the latter, as indicated at 21 in Fig. 5. The complete rail or frame member therefore comprises a longitudinal member, tubular throughout the greater part of its length and triangular in cross section, with a lower horizontal flange and an upper vertical flange; and with its ends solid and of channel form. Holes are drilled or punched through the ends of each rail and they are bolted to the inside surfaces of corner brackets or castings 2, which are

curved on their inner sides to conform to the shape of the rails. The inner surfaces of each bracket are stepped as shown at 24 and 25 in Fig. 5 in order to receive the ends of the frame rail comprising the two members 6 and 12 of unequal length, as above explained. Each corner bracket also includes a curved vertical flange 30 in its angle, which is a continuation of the flanges 10 of the frame members 1; so that when all of the rails with their corner brackets are assembled there is formed a complete rectangular frame having a ledge-like upper surface on which the stove body may rest and a continuous vertical flange rising from the inner edge of such ledge-like upper surface. This is shown in Fig. 1 where the stove body is indicated at 35 and the vertical flange on the top of the base frame is indicated in dotted outline within the stove body and serving to prevent the accidental displacement of the parts. The diagonal web on the inside of each channel member supports its ledge-like top which carries the weight of the stove body and in addition strengthens and stiffens such member in its middle portion or place of greatest strain.

In Fig. 10 is shown a modified form of one of the angular corner brackets, which is made considerably higher than the brackets 2 to provide an integral stove leg 40. The upper part of the bracket is substantially similar in all respects to the brackets 2, being provided with holes 42 for bolting the ends of the frame rails to it in the same manner as above described.

I claim as my invention:

1. A base frame for stoves comprising horizontal frame rails secured at their ends to corner brackets, each rail comprising nar-

row metal strips bent longitudinally into angular form and placed together with their upper and lower edges in contact and joined to form a tube, the end portions of such tube being flattened and secured to said corner brackets.

2. A base frame for stoves comprising horizontal frame rails secured at their ends to corner brackets, each rail comprising a longitudinal member of channel form and a diagonal reinforcing web joined at its edges to the edges of such channel member, such frame rail having a flat upper surface with a continuous vertical flange at its edge, and such corner brackets having curved flanges continuing the lengths of such frame rail flanges.

3. In a base frame for stoves, the combination of horizontal frame rails and corner brackets, each rail comprising a narrow strip of metal bent into channel form with a vertical web and upper and lower horizontal flanges, and the upper flange bent upward to form in addition a vertical flange, and a second strip joined at its edges to such upper vertical and lower horizontal flanges and forming a diagonal web between them, the complete rail being tubular and triangular in cross-section throughout the greater part of its length, and both parts being bent together into channel form at their ends and secured to said corner brackets.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses this 25th day of March, 1913.

SILAS McCLURE.

Witnesses:

JOHN RIORDON,

P. M. KETTENHOFEN.