Nov. 6, 1956 W. B. KEELOR 2,769,277

TERRACE BARRIER OR CURBING

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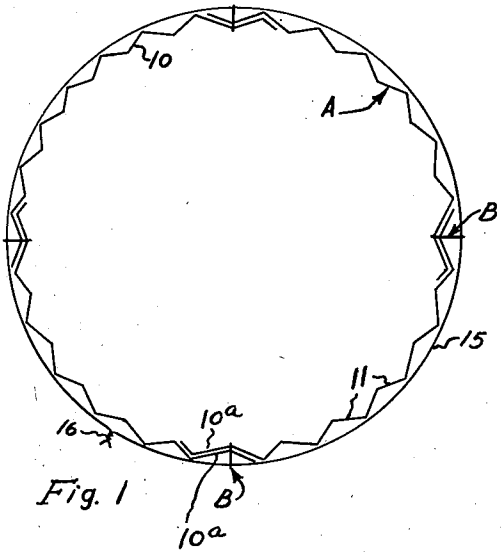

Fig. 1

Fig. 2

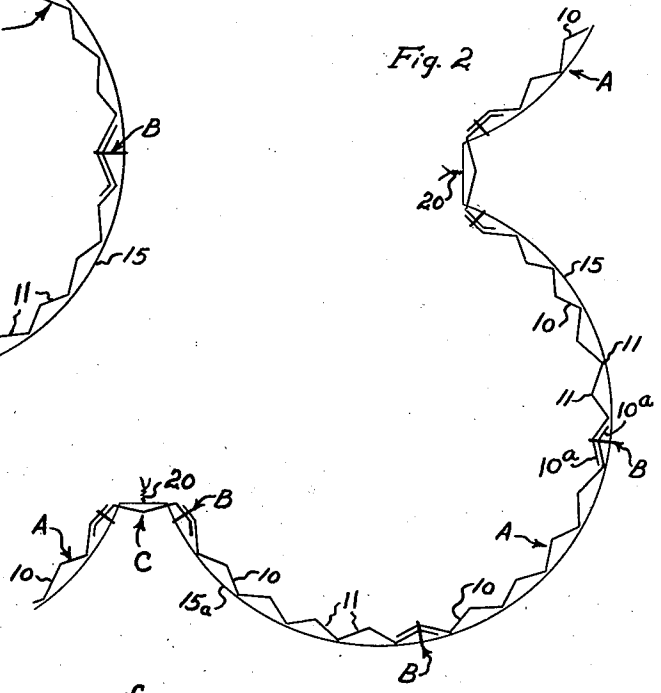

Fig. 4

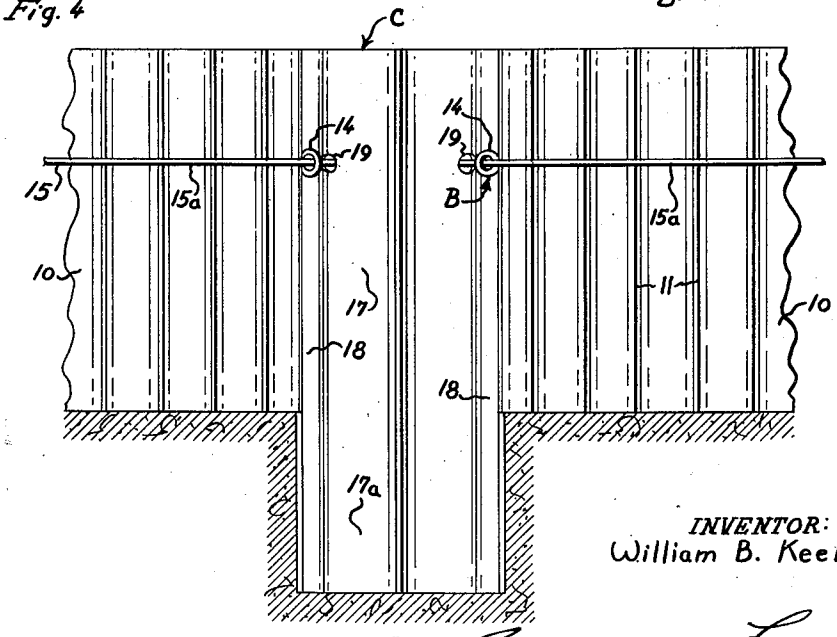

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Fig. 5

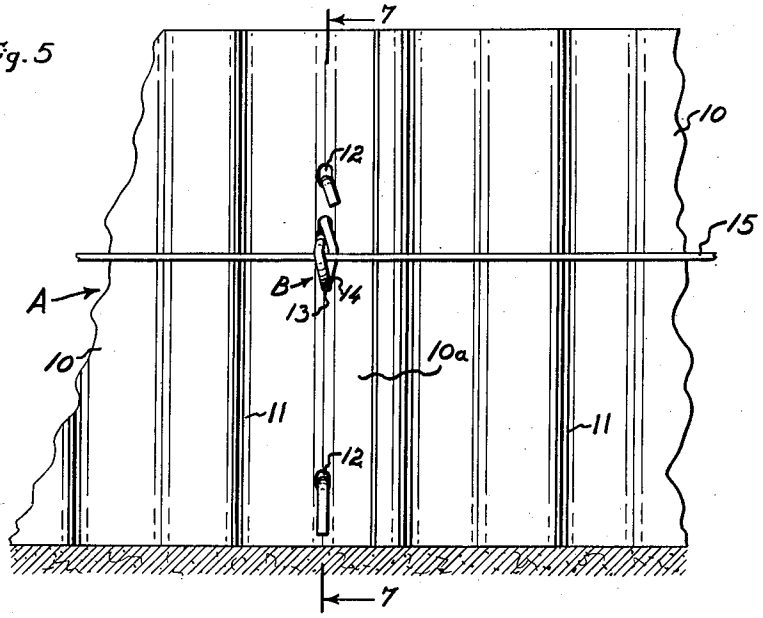


Fig. 6

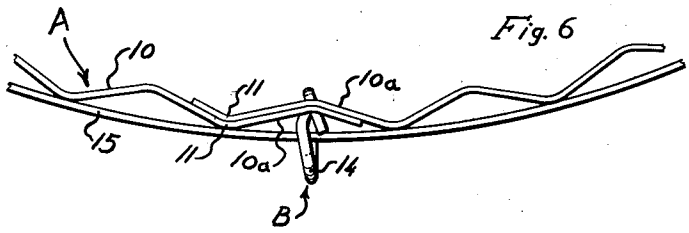


Fig. 7

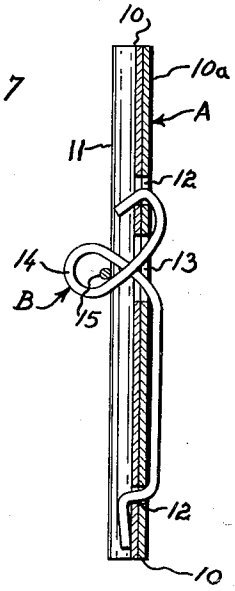
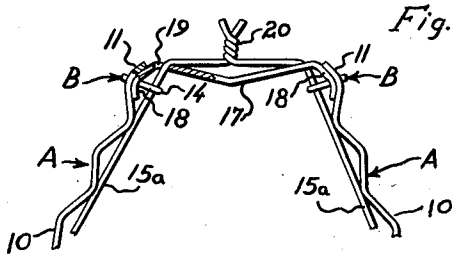


Fig. 3



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TERRACE BARRIER OR CURBING

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Application January 15, 1953, Serial No. 331,450

1 Claim. (Cl. 47—33)

My invention relates to improvements in terrace barriers or curbings particularly, though not exclusively, for bolstering up and retaining in place the soil in a terrace garden in a single tier, or in multiple superimposed tiers of pyramidal form.

An object of the invention is to provide a durable and inexpensive structure of the present nature consisting of sections of sheet metal in strips joined together end to end and constituting a barrier band which is adapted to stand on edge and which is capable of ready lateral flexure enabling the same to be conveniently laid on a line of chosen pattern.

Another object of the invention is to provide a number of such bands or barrier elements arcuated and assembled end to end in scalloped fashion and to provide coupling members adapted to be interposed between the adjacent inwardly converging ends of barrier elements at the confluence thereof to join said elements together, a further object being to provide coupling members of a construction adapted to anchor the barrier elements to the ground.

A further object is to provide in the barrier bands of a structure of the present character strip sections of sheet metal corrugated transversely thereof for vertical strength and for facility of flexure thereof horizontally.

Another object of the invention is to provide simple, durable and inexpensive means serving to truss the arcuated barrier elements about the girths thereof, thereby reinforcing their corrugated sections against expansion under outward pressure from the concave landsides of said elements.

An additional object is to provide fastening ties securing together the overlapping ends of sections of barrier bands, which ties have incorporated therein stay members for holding a trussing medium in place about the girth of a band.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawing:

Fig. 1 is a diagrammatical view, in plan, of an embodiment of the invention in form following a circular pattern.

Fig. 2 is also a diagrammatical view, in plan, the same illustrating an embodiment of the invention in form according to a scalloped pattern, which may or may not be endless, said embodiment including coupling members between the ends of the arcuated barrier elements.

Fig. 3 is a detail view, in plan, illustrating a fragment of the structure shown diagrammatically in Fig. 2, the same including a coupling member.

Fig. 4 is an elevational view of the structure shown in Fig. 3.

Fig. 5 is a fragmentary elevational view, in detail, illustrating the overlapped ends of two of the strip sections which go into the construction of a barrier element or band, said view also showing a tie fastener connecting together the overlapping ends of said sections, the tie

fastener having incorporated therein an eye cooperating with a trussing wire.

Fig. 6 is a plan view of the structure shown in Fig. 5.

Fig. 7 is a sectional view taken on the line 7—7 of Fig. 5.

The drawing illustrates two of various adaptations of the invention to which it is susceptible. Fig. 1 shows a terrace barrier or curbing following the pattern of a circle, and Fig. 2 shows a different adaptation following a scalloped pattern, which, obviously, may be open more or less at its concave side, or endless as may be desired.

The invention includes a barrier element or band A consisting of a number of sections or strips **10** of sheet metal. These sections or strips **10** are arranged in endwise succession with overlaps **10***a* at their adjacent ends lapping one upon the other. Said sections **10** are uprightly edgewise disposed and a sectional band A formed thereby rests at its lower edge on the ground, the concave side of the band being the landside thereof. These sections or strips **10** have corrugations **11** therein extending transversely thereof, the purpose of which is to strengthen the strips **10** laterally in a vertical direction and to facilitate the bowing thereof in following the particular arcuate pattern chosen therefor.

The sections or strips **10** are united by fastening together the companion overlaps **10***a* thereof at each joint between adjacent sections. A preferred fastening for such purpose is a tie clip B of wire. This clip B, best shown in Fig. 7, is applied to registering end apertures **12** and to registering intermediate apertures **13** formed in the bottoms of nesting valleys in the overlaps **10***a*, said clip B having incorporated therein an eye **14**, which is situated in the valley of the outer overlap **10***a* and which has a portion of its opening substantially flush with adjacent crests of the corrugations **11**. Said eyes **14** of the several clips B lie substantially in a common horizontal plane. Joint forming construction, involving said clip B specifically, is the subject matter of a companion application, the feature of importance here being the incorporation of an eye or equivalent member in the fastener used to tie together the overlaps **10***a* of the sections **10** of the barrier bands A.

For the purpose of reinforcing the corrugated section or strips **10** of a band A against expansion under any pressure which might be exerted against the band from its inner landside and which might distort the band out of the pattern followed in its installation, a trussing medium is disposed across the crests of the corrugations **11** about the convex face of the barrier band A and is held so disposed by the truss-holding members on the fastener ties connecting together the overlaps **10***a* of the sections **10**. Such truss-holding members are exemplified in the eyes **14** of the clips B by which the trussing medium in the form of a wire **15** is held. In the adaptation of the invention, as shown in Fig. 1, the ends of this wire **15** are twisted together, as at **16**, while in the adaptation shown in Fig. 2, adjacent ends of adjacent truss-wire sections **15***a* are twisted together, as will soon appear.

In said adaptation of the invention shown in Fig. 2, wherein a scalloped pattern is followed, a number of bowed or arcuated barrier bands A are successively arranged endwise, the adjacent ends of adjacent bands converging one toward the other, but terminating short of each other with their extremities spaced apart. Combination coupling and anchoring posts C are provided, one for each confluence of said arcuated barrier bands A. Each post C comprises an elongated upright panel **17** of sheet metal having a corrugation **18** along each of its upright edges strengthening the same vertically. Such post C, laterally thereof, spans the space between extremities of its respective ends of its respective barrier bands A and its corrugations **18** nest in the terminal cor-

rugations 11 of said bands. Each of such pairs of nested corrugations 11, 18 are fastened together with a clip B, the eye 14 of which is in the plane of the eyes 14 of the clips B fastening together the overlaps 10*a* of the sections or strips 10. The lower end of each post panel 17 has an extension 17*a* reaching considerably beneath the lower edges of the bands A upon which edges said bands rest on the ground. This extension 17*a* is adapted to be sunk into the soil and, when it is lodged in the ground upon installation of the terrace barrier, the post C serves to anchor its respective barrier bands A to the ground in addition to coupling the same together.

Each post panel 17 has two apertures 19 therein at opposite sides thereof, each aperture 19 being in line with the opening of the eye 14 of the fastening clip B at its respective side of the post panel 17. In a structure employing such post panels 17, each arcuated barrier band A is encompassed by a section 15*a* of the truss wire 15 which is made up of such wire sections. Each wire section 15*a* is strung through the eyes 14 of the clips B which fasten together the ends of the sections or strips 10 constituting its respective band A and each end of such section 15*a* of the wire 15 is strung through the eye 14 of its respective clip B and also through the corresponding aperture 19 in its respective post C. At the inner side of each post, the two terminal portions of the two truss wire sections 15*a*, extending through such post C, are twisted together, as at 20, such twists between sections 15*a* in the wire 15 serving to tighten said wire sections and hold them taut for the effective trussing of the barrier bands A against expansion under pressure of the soil curbed thereby.

Changes in the specific form of the invention, as herein described, may be made within the scope of what is claimed without departing from the spirit of the invention.

Having described the invention, what is claimed as new and desired to be protected by Letters Patent is:

In a terrace barrier, transversely bowed barrier bands

of sheet metal transversely corrugated and arranged edgewise upright in endwise succession, in scalloped fashion, the adjacent end portions of adjacent bands converging and terminating short of each other with their ends in relatively spaced relation, a coupling post in the form of a panel of sheet metal spanning the space between adjacent ends of adjacent barrier bands, the upright edge portion of the post at either side thereof having a vertically extending corrugation therein overlapped by and nesting in the terminal corrugation of its respective barrier band, fastening means securing such bands to the post at the nested overlaps between bands and post, said post having a pair of apertures therein, one at either side of the post adjacent to the corrugation therein, a trussing member of wire for each such band, the same extending along the outer convex face of its respective band and having a terminal portion extending through its corresponding aperture in the post, the ends of said terminal portions of said trussing members having a tensioning twist therebetween located at the inner side of the post, said tensioning twist uniting the said terminal portions of said trussing members at said inner side of said post.

References Cited in the file of this patent

UNITED STATES PATENTS

329,926	McMaster	Nov. 10, 1885
459,804	White	Sept. 22, 1891
862,698	Bierbaum	Aug. 6, 1907
1,075,255	Helm	Oct. 7, 1913
2,001,473	Smith	May 14, 1935
2,138,037	Lane	Nov. 29, 1938

FOREIGN PATENTS

14,174	Great Britain	1911
15,425	Great Britain	1886
128,390	Switzerland	June 17, 1929