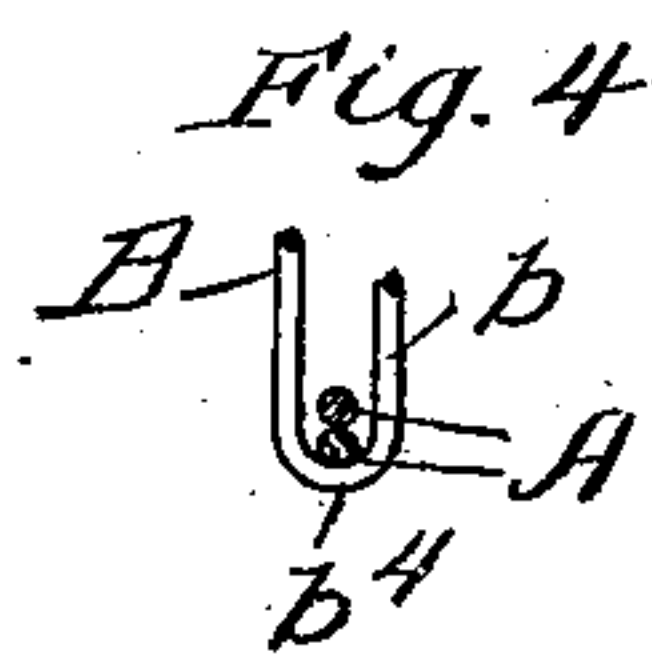
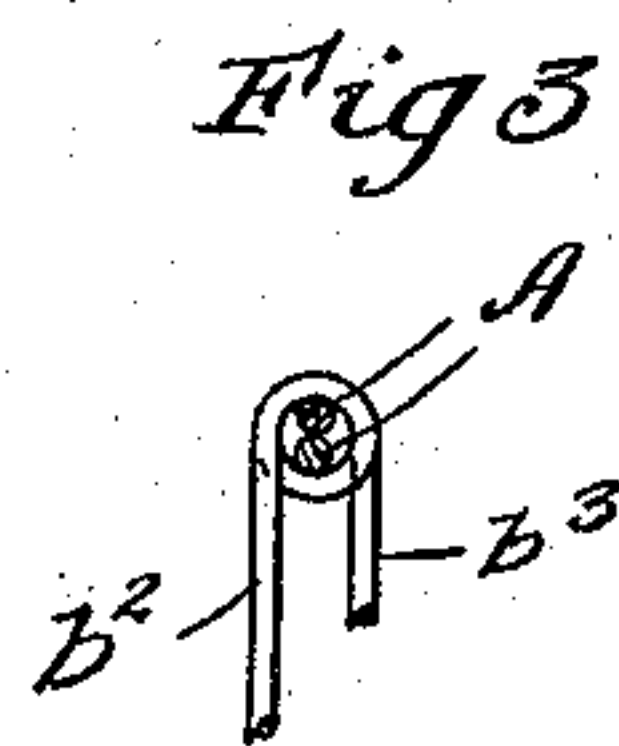
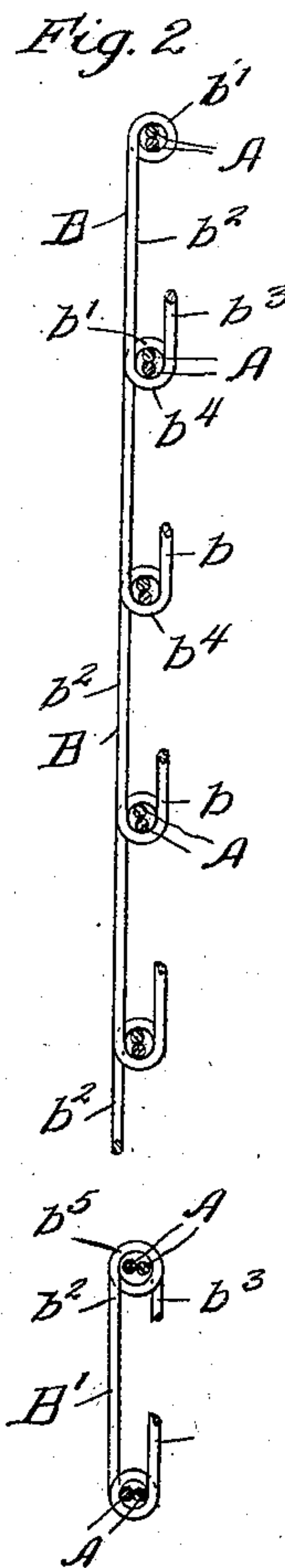
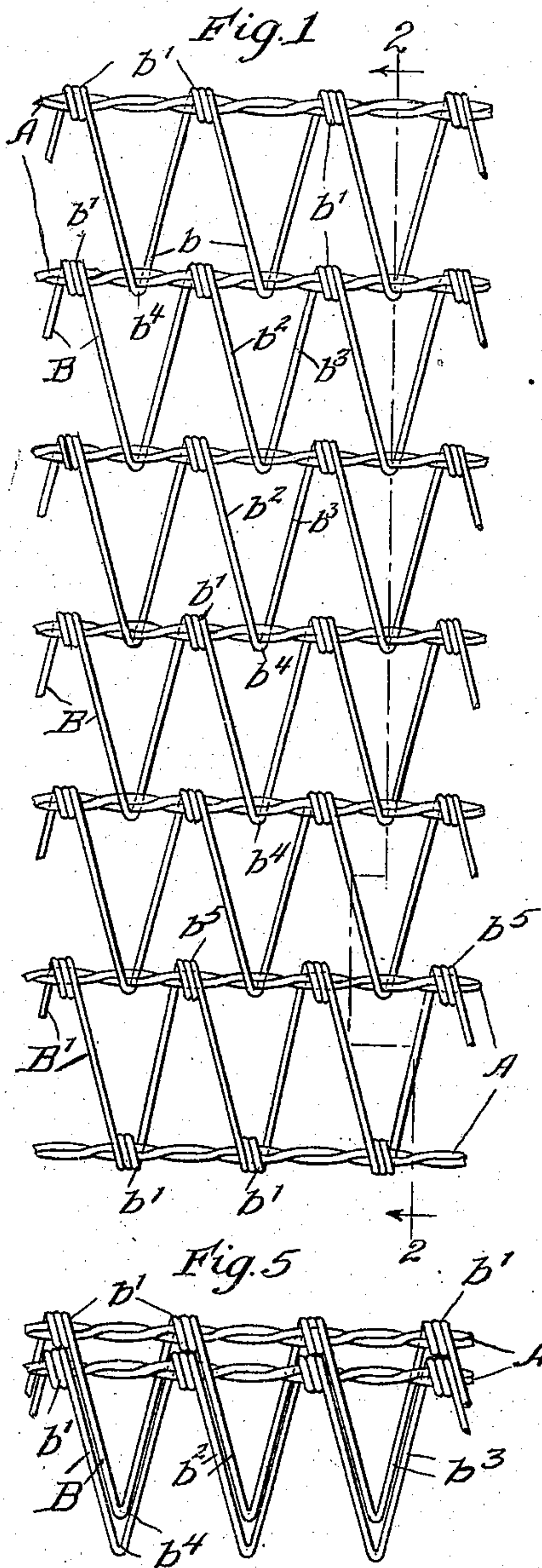


No. 815,052.

PATENTED MAR. 13, 1906.

W. M. WADLEIGH.
WOVEN WIRE FENCE.
APPLICATION FILED SEPT. 19, 1904.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM M. WADLEIGH, OF CHICAGO, ILLINOIS.

WOVEN-WIRE FENCE.

No. 815,052.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed September 19, 1904. Serial No. 224,955.

To all whom it may concern:

Be it known that I, WILLIAM M. WADLEIGH, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Woven-Wire Fences, of which the following is a specification.

My invention relates to improvements in woven-wire fences.

10 The object of my invention is to provide a woven-wire fence of a strong, simple, efficient and durable construction, capable of being rapidly and cheaply manufactured, in which the line-wires may be independently tight-
15 ened or adjusted, which may be erected over hills, sharp inclines, or uneven ground without distortion or uneven strain, in which the fence may be collapsed or narrowed in respect to its height or width for convenience
20 in handling, shipment, or storage, in which the mesh-wires are rigidly fixed in place longitudinally, and in which when the fence is erected each of the line-wires is supported and held against sagging or downward pressure through the cooperating mesh-wires by
25 the combined strength and tension of all the line-wires above it, thus adapting the lower line-wires to support without injury the weight of the person stepping thereon or
30 climbing over the fence.

My invention consists in the means I employ to practically accomplish this object or result and secure all these advantages in a single unitary structure—that is to say, my
35 invention consists in a woven-wire fence composed of a plurality of horizontal strands or line-wires and a plurality of continuous diagonal mesh-wires, each of the diagonal mesh-wires extending in a series of angle-limbs be-
40 tween two adjacent line-wires and dividing the space between said adjacent line-wires into substantially equal or uniform meshes or open spaces, and each having a series of coils surrounding and tightly embracing one of the
45 line-wires and rigidly securing the same thereto, in connection with a series of closely-adjacent dependent V-shaped angle-loops extending to and around and loosely engaging and supporting the next lower adjacent line-wire,
50 and thus connecting the line-wires, while at the same time enabling them to be independently or separately tightened or adjusted, and thereby adapting the fence to be erected over hills or inclines or uneven ground without
55 distortion or undue strain and also enabling the fence to be collapsed for handling and

shipment. The closely-adjacent depending angle-loops of the mesh-wires register with each other, one above another, and the coils uniting the adjacent depending angle-loops
60 are at the apex or angle formed between the adjacent limbs or members of adjacent depending V-shaped angle-loops, thus giving the continuous diagonal mesh-wire a continuous zigzag or diagonal form as it extends be-
65 tween adjacent line-wires and forming substantially uniform triangular meshes or open spaces. To prevent the lower or marginal line-wire of the fence from springing upward, and thus interfering with a pig-tight fence,
70 the lower diagonal mesh-wire is furnished with coils at both the upper and lower angles of the loops, one set of coils being around the lower line-wire and the other set of coils being around the next adjacent line-wire above,
75 its coils around this line-wire, however, being loose coils to enable the line-wire to be tightened or adjusted independently. My invention also consists in the novel construction of parts and devices and in the novel combina-
80 tions of parts and devices herein shown or described.

In the accompanying drawings, which form a part of this specification, Figure 1 is a front elevation of a short section of woven-
85 wire fence embodying my invention. Fig. 2 is a vertical section on line 2 2 of Fig. 1. Fig. 3 is a detail vertical section showing one of the tight or rigid coils of the diagonal mesh-wire about the line-wire to which it is at-
90 tached. Fig. 4 is a detail vertical section showing one of the loose angle-loops of the diagonal mesh-wire about the adjacent line-wire, and Fig. 5 is a front elevation showing a short section of the fence collapsed or con-
95 tracted in width for shipment.

In the drawings, A A are the strands or line-wires, each being preferably in the form of a wire cable, although, if desired, each may be composed of a single wire. Any de-
100 sired number of these line-wires may be employed, according to the height and character of the fence desired.

B B are a series of diagonal mesh-wires, each extending between two adjacent line-
105 wires in a series of depending V-shaped or angle loops *b* and dividing the space between its adjacent line-wires into substantially uniform triangular meshes or open spaces and each furnished with a series of integral coils
110 *b'*, surrounding and tightly embracing its line-wire, to which it is thus rigidly secured

against longitudinal movement. The series of depending V-shaped or angle loops b extend to and loosely surround and engage the next lower adjacent line-wire A, thus connecting the two line-wires together and supporting each line-wire from the line-wire next above through the cooperating depending angle-loops b . The depending limbs b^2 b^3 of each set of angle-loops b at their apex or bend b^4 fit between the coils b' b' of the next lower diagonal mesh-wire, which is secured by its coils to the next adjacent lower line-wire A. The adjacent diagonal limbs b^2 b^3 of two adjacent depending angle-loops b b are united at their upwardly-extending apex or angle by coils b' .

The lowermost continuous diagonal mesh-wire B', which extends between the two lowermost strands or line-wires A A, preferably has its tight or rigid coils b' surrounding and embracing the lowermost line-wire A, and is provided with loose coils b^5 , which loosely surround and embrace the next adjacent line-wire A above, so that the diagonal mesh-wire will thus prevent the lowermost line-wire A from being sprung upward at the ground, this being the preferable construction for fences desired to be pig-tight.

As in my invention the continuous diagonal mesh-wires are each secured by a series of tight rigid coils to one of the line-wires and composed of a series of closely-adjacent depending angle-loops extending to, about, and loosely engaging and supporting the next adjacent line-wire below, all the line-wires are adapted to be independently tightened or adjusted, and each of the lower line-wires when stepped upon, as is done by a person climbing over the fence, is supported by the cooperating strength and tension of all the line-wires above, while at the same time the fence is adapted to be collapsed or contracted in width for shipment, and the fence is also of such form and construction as to be capable of being rapidly and cheaply manufactured by automatic machinery, and all the diagonal limbs or members of the continuous diagonal mesh-wires are uniformly and evenly distributed or spaced, so that the meshes are of uniform size and shape, all being triangular. My fence also by its construction is not only of uniform mesh or spacing, but is also of uniform strength, stiffness, and flexibility throughout its whole length and width, thus adding greatly to its power of resistance and to its durability. As the second line-wire A from the bottom is not tightly or rigidly secured to either the mesh-wire above or the mesh-wire below, but is simply loosely engaged by the loose coils b^5 of the lower mesh-wire, as well as by the depending angle-loops of the mesh-wire next above, this second line-wire from the bottom may be withdrawn and the lower line-wire and its connected mesh-wire (which is adja-

cent to the ground and the grass and weeds and moisture therefrom, and thus liable to quicker rusting and destruction than the upper portion of the fence) then replaced with new line-wires and a new mesh-wire, thus giving new life to the fence as a whole.

I claim—

1. A wire fence, comprising a plurality of strand or line wires, and a plurality of continuous diagonal mesh-wires each diagonal mesh-wire extending between two adjacent line-wires, each of said mesh-wires having a series of coils surrounding and tightly embracing and rigidly secured to one of the line-wires, and each of said mesh-wires having a series of closely-adjacent depending V-shaped or angle loops extending to and about and loosely engaging the next adjacent line-wire below, said series of adjacent depending angle-loops dividing the space between the two adjacent line-wires connected by it into substantially uniform meshes or open spaces, each of the line-wires passing through the coils of one of the mesh-wires, substantially as specified.

2. A wire fence, comprising a plurality of strand or line wires, and a plurality of continuous diagonal mesh-wires each diagonal mesh-wire extending between two adjacent line-wires, each of said mesh-wires having a series of coils surrounding and tightly embracing and rigidly secured to one of the line-wires, and each of said mesh-wires having a series of closely-adjacent depending V-shaped or angle loops extending to and about and loosely engaging the next adjacent line-wire below, said series of adjacent depending angle-loops dividing the space between the two adjacent line-wires connected by it into substantially uniform mesh or open spaces, the lowermost diagonal mesh-wire which extends between the two lowermost line-wires having its tight coils about the lowermost line-wire and loose coils about its adjacent line-wire above, each of the line-wires passing through the coils of one of the mesh-wires, substantially as specified.

3. A woven-wire fence, comprising in combination a series of line-wires and a series of continuous diagonal mesh-wires, each extending between two adjacent line-wires and dividing the space between said line-wires into substantially uniform angular meshes or open spaces, and provided with coils tightly embracing one of its line-wires, and depending angle-loops loosely embracing and supporting its adjacent line-wire below each of the line-wires passing through the coils of one of the mesh-wires, substantially as specified.

4. A woven-wire fence, comprising in combination a series of line-wires and a series of continuous diagonal mesh-wires, each extending between two adjacent line-wires and dividing the space between said line-wires into substantially uniform angular meshes or

open spaces, and provided with coils tightly embracing one of its line-wires, and depending angle-loops loosely embracing and supporting its adjacent line-wire below, the lowermost diagonal mesh-wire of the fence having a set of tight coils embracing one of its line-wires and a set of loose coils embracing its adjacent line-wire, each of the line-wires passing through the coils of one of the mesh-wires, substantially as specified.

5. A woven-wire fence, comprising a series of strand or line wires, and a series of continuous diagonal mesh-wires, each diagonal mesh-wire extending between and connecting two adjacent line-wires and dividing the space between such line-wires into substantially uniform angular meshes, and having coils embracing one of its line-wires, and angle-loops embracing and supporting its other line-wire, each of the line-wires passing

through the coils of one of the mesh-wires, substantially as specified.

6. A woven-wire fence, comprising a series of strand or line wires, and a series of continuous diagonal mesh-wires, each diagonal mesh-wire extending between and connecting two adjacent line-wires and dividing the space between such line-wires into substantially uniform angular meshes, and each having coils embracing one of its line-wires, and angle-loops embracing and supporting its other line-wire, the lowermost diagonal mesh-wire having an upper and lower set of coils, each of the line-wires passing through the coils of one of the mesh-wires, substantially as specified.

WILLIAM M. WADLEIGH.

Witnesses:

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H. M. MUNDAY.