

(No Model.)

2 Sheets—Sheet 1.

J. R. WHERRY.

DEVICE FOR PREVENTING PRISONERS FROM ESCAPING.

No. 536,979.

Patented Apr. 2, 1895.

Fig. I.

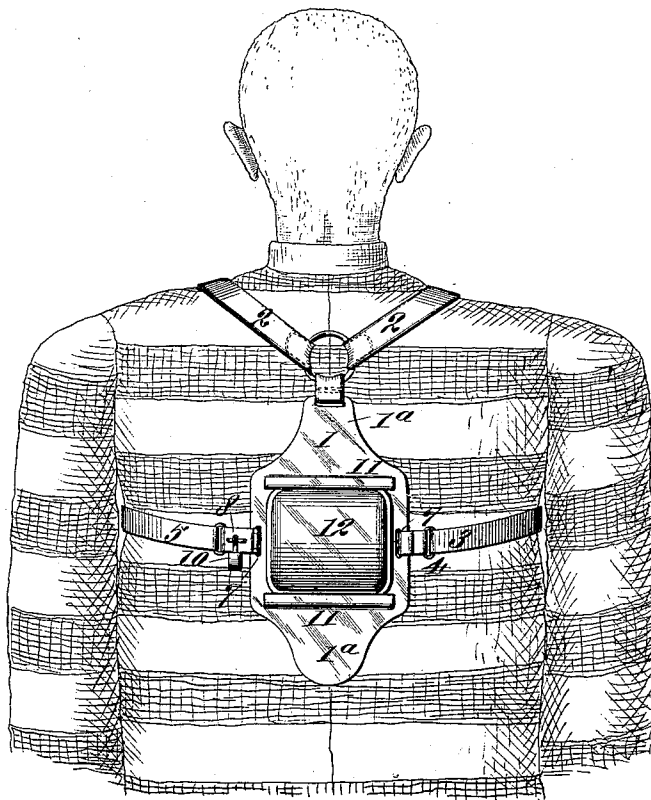
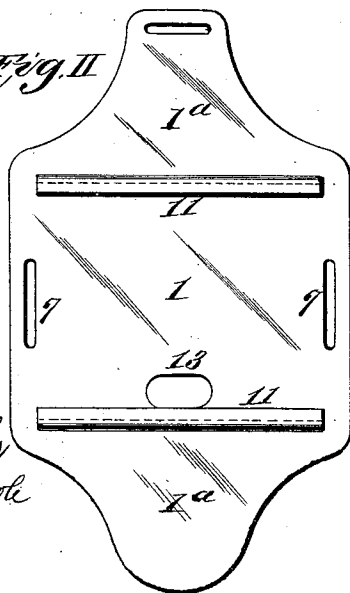
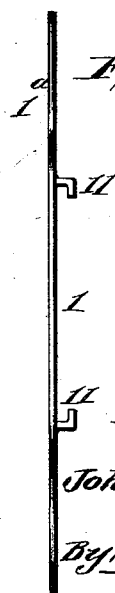


Fig. II



Witness:
E. S. Knight
A. M. Elvrod

Fig. III



Inventor:
John R. Wherry
By Knight Bros
Attys

(No Model.)

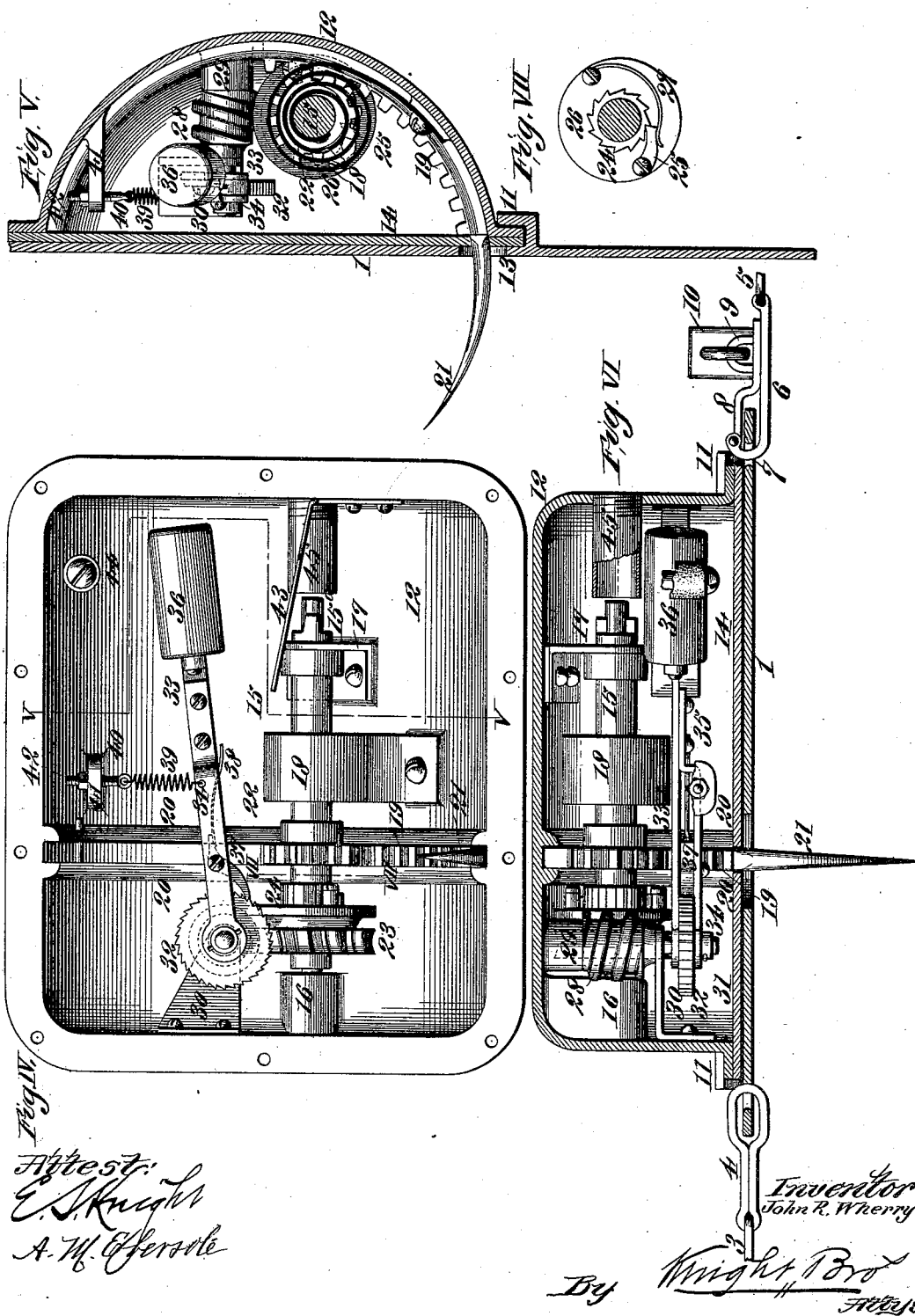
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JOHN R. WHERRY, OF LITTLE ROCK, ARKANSAS.

DEVICE FOR PREVENTING PRISONERS FROM ESCAPING.

SPECIFICATION forming part of Letters Patent No. 536,979, dated April 2, 1895.

Application filed June 25, 1894. Serial No. 615,603. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. WHERRY, of Little Rock, in the county of Pulaski and State of Arkansas, have invented a certain
5 new and useful Improvement in Devices for Preventing Prisoners from Escaping, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.
10

My invention relates to a device adapted to be secured to the person of a prisoner, for the purpose of stopping him from running in the event of his attempting to escape from
15 the guards, when at work outside the prison walls, and briefly described, my invention consists in mechanism adapted to propel a needle from a case, secured to the person of the prisoner in such a manner that the motion of the running will cause the mechanism
20 to project the needle into the prisoner's body.

My invention consists in features of novelty hereinafter fully described and pointed out in the claims.

25 Figure I is a view of a prisoner with my device secured to his back. Fig. II is an elevation of the plate to which the device is secured. Fig. III is an edge view of the plate shown in Fig. II. Fig. IV is an elevation of the device. Fig. V is a vertical section taken
30 on line V—V, Fig. IV. Fig. VI is a horizontal section taken through the case and its supporting plate, and shows in plan the mechanism of the device. Fig. VII is a detail view
35 of the ratchet on the needle operating shaft, and a section through the shaft, taken on line VII—VII—Fig. IV.

Referring to the drawings, 1 represents a plate for supporting the device, which plate
40 is secured to the body of a prisoner by means of a harness consisting of straps 2, that pass from the rear to the front of the prisoner's body, over the shoulders, and the ends of which are brought back under the arms and
45 connected to the plate, the end 3 being connected by a permanently fastened loop 4, and the opposite end 5 of the strap being connected to a plate 6, adapted to pass through an opening 7 in the plate 1, and having hinged
50 to it a hasp 8 that fits over a staple 9 and is

locked by a pad-lock 10 or other suitable fastening.

On the face of the plate 1 are flanged lips 11, into which the case 12 of the device is inserted, and held in place, the case being prevented
55 from sidewise movement by loop 4 and plate 6. Above the lower flanged lip 11 is an elongated opening 13, through which the needle of the device passes, the said opening being elongated to allow the needle to always pass
60 through it, whether the case 12 is in the center of the plate or a little to one side of the center. 14 is a plate secured to the flat side of the case 12 by rivets or screws.

Referring now to the operating mechanism
65 of the device, 15 represents a shaft journaled at one end in a box 16 and at its opposite end in a bracket 17, secured to the case 12. 18 is a spring secured at one end to the case and coiled around the shaft 15 and having its op-
70 posite end secured to the shaft.

19 is a rack bar fitting and moving between ribs 20, on one end of which is the needle 21. On the shaft 15, adjacent to the rack bar 19, is a toothed wheel 22, the teeth of which mesh
75 with the teeth of the rack bar. Near the end of the shaft 15, which is journaled in the box 16, is a worm wheel 23.

24 is a ratchet wheel on the shaft 15 and 25 is a pawl pivoted to a plate 26, the point of
80 said pawl being held in contact with the teeth of the ratchet wheel 24 by a spring 27. The office of said ratchet and pawl is to lock the shaft 15 and prevent its retrograde movement when the spring 18 is wound up.
85

Engaging with the worm wheel 23 is a worm 28, the journals of which are mounted in a box 29 and bracket 30. On the outer end of the worm 28 is a projecting shaft 31 on which is a ratchet wheel 32, and loosely mounted on
90 said shaft 31 are bars 33 and 34, connected together at 35, so as to form a fork that straddles the ratchet wheel 32, and on the outer end of the bar 33 is a pendulum weight 36. Pivoted between the bars 33 and 34 is a pawl
95 37, whose point engages with the teeth of the ratchet wheel 32, and is held in such engagement by a spring 38, the free end of which bears against the lower edge of the bar 34.

Connected to the bar 34 is a spring 39, the
100

opposite end of which spring is connected to the eye of a screw 40, passing through a lug 41 and provided with a nut 42, by which the tension of the spring 39 may be adjusted.

5 It will be observed that the movement of the pendulum weight 36 is a vertical vibration and the distance of its movement is regulated by a spring stop 43 located below the weight and a cushioned pin or screw 44 above
10 the weight.

To wind the spring 18 and draw the needle within the case 12, I insert a key through an opening in the side of the case 12 through a tube 45, which key engages with the end 15^a
15 of the shaft 15 and on turning the key, the needle is retracted and the spring 18 is coiled tightly around shaft 15, the ratchet wheel 24 and pawl 25 holding the shaft from retrograde movement as it is turned.

20 The operation of the device is as follows: The spring being wound, the device is attached to a prisoner as illustrated in Fig. 1, and should the prisoner attempt to escape by running, the motion of his body will cause
25 the pendulum weight 36 to vibrate. In doing so the pawl 37 acts to turn the ratchet wheel 32, which having connection with the worm 28, causes the worm to turn and the worm in its turn acts upon the worm wheel 23 to drive
30 the shaft 15, while at the same time spring 18 in its effort to unwind, also acts to turn the shaft 15 and thus the toothed wheel 22 turning with the shaft and moving over the teeth of the rack bar 19, forces the needle out of the
35 case and into the body of the prisoner. The movement of the needle continues as long as the prisoner continues to run and vibrate the pendulum weight, the whole mechanism stopping when the pendulum weight ceases vibrating.
40

A device constructed in accordance with my invention is of great utility, owing to its being readily connected to the body of the prisoner, and working only in the event of the
45 prisoner attempting to run, when the pain caused by the needle being projected into his body will soon cause him to stop running and thus allow his capture.

The device is also a humane one as compared with the ball chains or shoe plates now
50 in common use, both of which interfere with the movements of the prisoners while at work, and it has been the custom to shoot escaping prisoners, whereas with my device, this is not
55 necessary.

I prefer to make the rack 19 and needle 21 in the arc of a circle, or out of a straight line, as shown in the drawings. The object of doing this is to give an increased length to the
60 needle and its movement without increasing the depth of the case or box. By thus forming the needle and rack, the former can be, say, four inches long and protrude from the case two inches, while the case itself need not be

more than an inch and a quarter, or an inch 65 and a half deep.

The plate 1 is provided with an upper and lower extension 1^a, so that a prisoner cannot by getting his fingers under the plate turn it so that the needle will not enter his body, 70 the extensions of the plate forming a long bearing surface for the device against the prisoner's back.

I do not want to be limited to the particular form of mechanism for operating the needle, 75 as this may be changed or varied.

To avoid the possibility of the prisoner inserting an article back of the plate 1 and opposite the needle opening, to prevent the needle entering his body, the plate may be suitably secured, for instance, by wire stitching or rivets, to his shirt or garment.

I claim as my invention—

1. A device for preventing the escape of prisoners, consisting of a case, a needle, and 85 mechanism for the purpose of protruding said needle from the case, said mechanism being adapted to be operated by the running motion of the wearer.

2. A device for preventing the escape of 90 prisoners, consisting of a case, a needle, and mechanism operated by a pendulum, which is vibrated by the running motion of the wearer.

3. The combination, in a device for preventing the escape of prisoners, of a case, a needle, 95 a shaft geared to the needle, a spring connected to said shaft, and a pendulum geared to said shaft.

4. The combination, in a device for preventing the escape of prisoners, of a case, a needle, 100 a rack bar connected to said needle, a shaft, a spring connected to said shaft, a toothed wheel on said shaft engaging said rack bar, a pendulum and connection from said pendulum to said shaft: substantially as described. 105

5. The combination, in a device for preventing the escape of prisoners, of a case, a needle, 110 a rack bar connected to said needle, a shaft, a toothed wheel on said shaft, engaging the teeth of said rack bar, a spring connected to said shaft, a worm wheel on said shaft, a worm engaging said worm wheel, a ratchet wheel, and a pendulum, said pendulum carrying a pawl that engages with the teeth of said 115 ratchet wheel: substantially as set forth.

6. The combination, in a device for preventing the escape of prisoners, of a case, a needle, 120 a rack bar connected to said needle, a shaft, a toothed wheel on said shaft engaging the teeth of said rack bar, a spring connected to said shaft, a ratchet wheel on said shaft, provided with a pawl, a worm wheel on said shaft, a worm engaging said worm wheel, a ratchet wheel connected to said worm, a pendulum 125 carrying a pawl for engagement with said ratchet wheel, and a spring supporting said pendulum: substantially as set forth.

7. A device for preventing the escape of prisoners, consisting of a case, a needle, and mechanism for protruding the needle from the case: said mechanism being adapted to
5 be operated by the running motion of the prisoner: and said needle being formed in the arc of a circle: substantially as set forth.

8. A device for preventing the escape of prisoners, consisting of a case, a curved needle
10 and rack, and mechanism for protruding the needle from the case: substantially as and for the purpose set forth.

9. A device for preventing the escape of prisoners, consisting of a case, a needle, and
15 mechanism adapted to be operated by the running motion of the prisoner, and which is

connected to the needle: said needle being formed out of a straight line: substantially as and for the purpose set forth.

10. A device for preventing the escape of 20 prisoners, consisting of a case, a needle, and mechanism adapted to be operated by the running motion of the prisoner, to project the needle from the case: said case being adapted to be attached to the prisoner's back by means 25 of a plate having upper and lower extensions 1^a: substantially as and for the purpose set forth.

JOHN R. WHERRY.

In presence of—

J. A. WEBB,

Z. H. MANUS.