

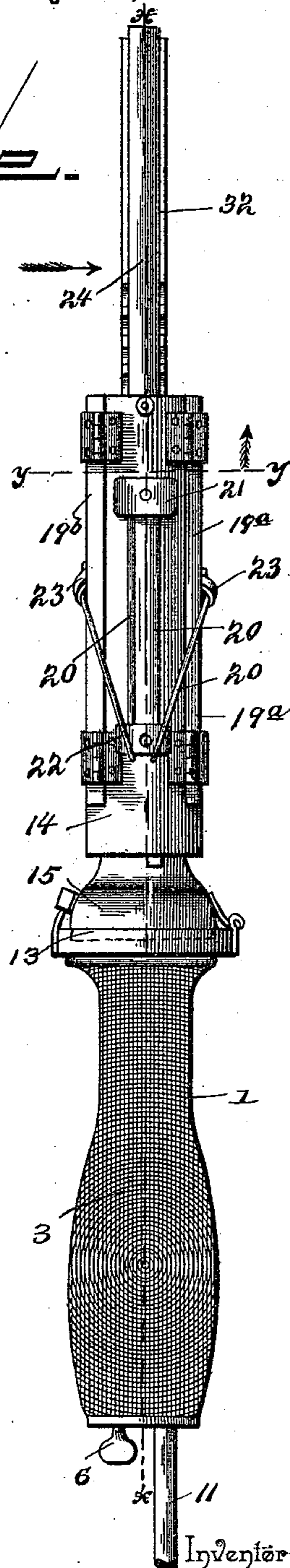
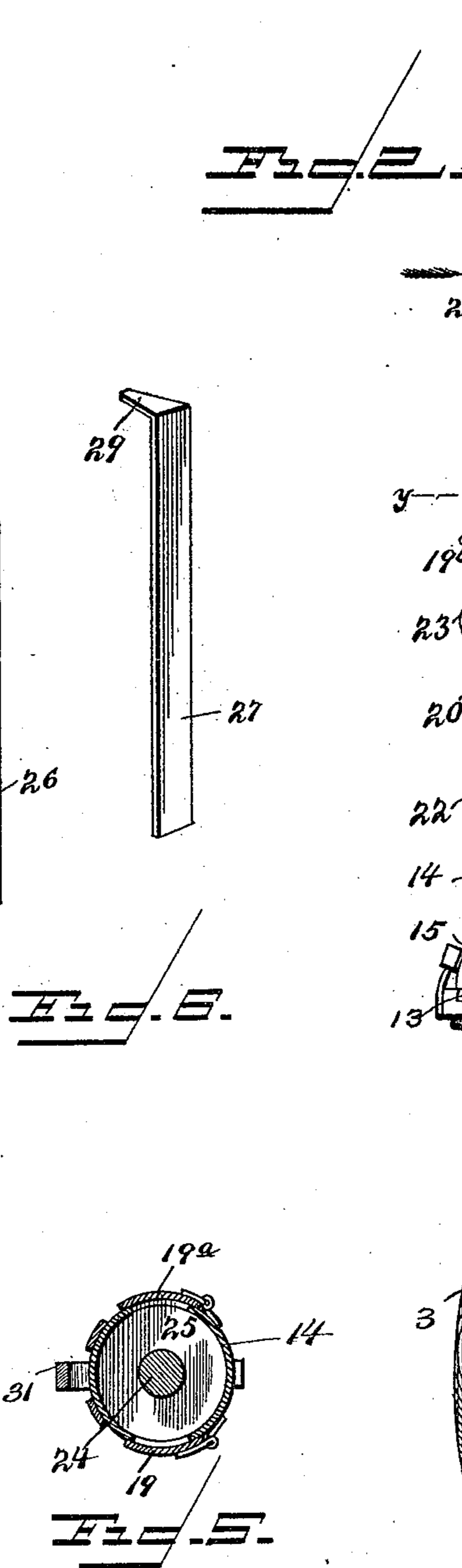
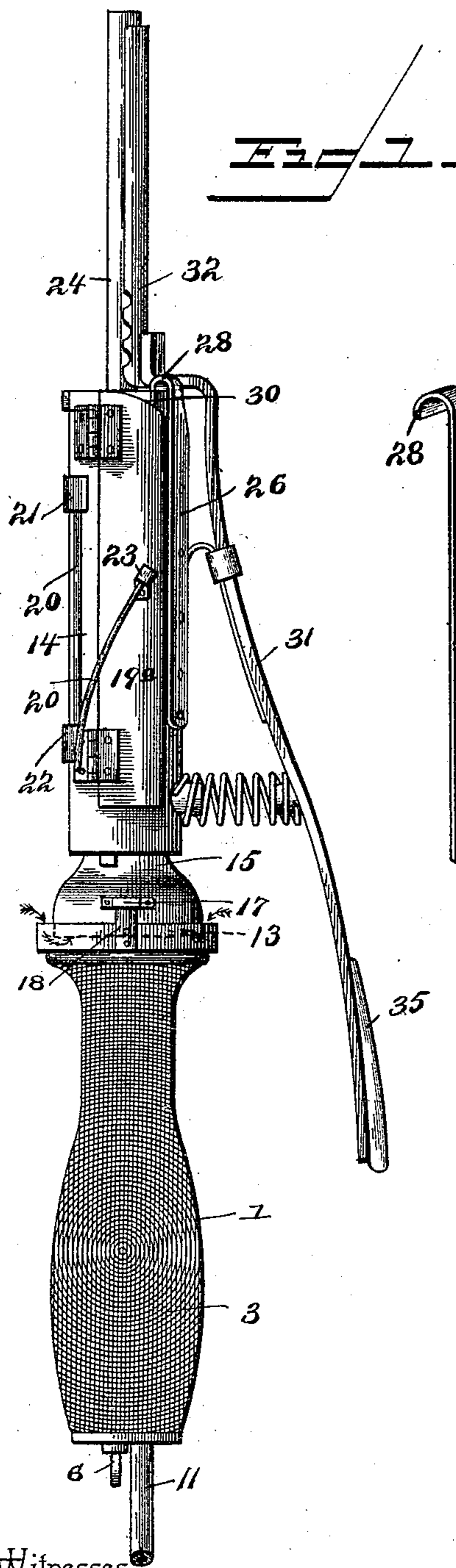
(No Model.)

2 Sheets—Sheet 1.

W. PENTONEY.  
CURLING IRON.

No. 497,526.

Patented May 16, 1893.



Witnesses

E. H. Stewart

*C. E. Day*

By *his* Attorneys,

*C. A. Snow & Co.*

Inventor  
William Pentoney

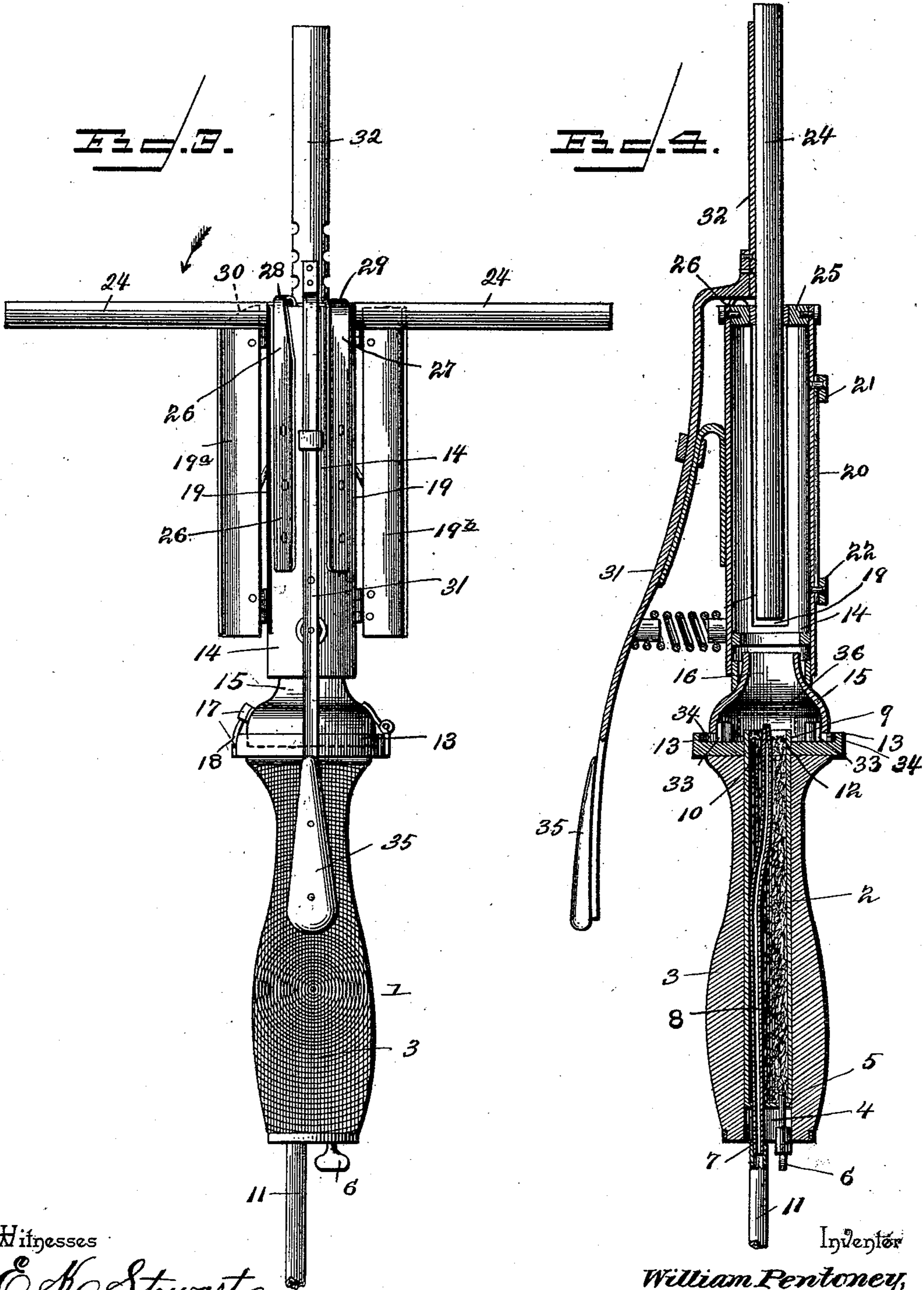
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Inventor

William Pentoney,

# UNITED STATES PATENT OFFICE.

WILLIAM PENTONEY, OF IRONTON, OHIO, ASSIGNOR OF ONE-HALF TO  
FRANK I. McCAULEY, OF SAME PLACE.

## CURLING-IRON.

SPECIFICATION forming part of Letters Patent No. 497,526, dated May 16, 1893.

Application filed January 7, 1893. Serial No. 457,632. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM PENTONEY, a citizen of the United States, residing at Iron-  
ton, in the county of Lawrence and State of  
5 Ohio, have invented a new and useful Hair  
Curling or Crimping Iron, of which the fol-  
lowing is a specification.

The invention relates to improvements in  
hair curling or crimping irons, and has for its  
10 object to provide a device of the class named  
in which the stem is continuously heated  
during the use of the article.

A further object of the invention is to pro-  
vide a device of the class named in which one  
15 end of the stem is being heated during the  
use of the opposite end, such stem being re-  
versible as desired to bring the heated end  
into position for use.

A further object of the invention is to pro-  
vide a device of the class described, in which  
20 the stem is reversible without being detached  
and without necessitating the use of supple-  
mental devices, such as holders, to accomplish  
the reversal.

A further object of the invention is to pro-  
vide simple, compact and portable means for  
applying heat, constantly, to the stem with-  
out exposing the operator to the danger of be-  
ing burned.

30 A further object of the invention is to pro-  
vide means for heating the stem during the  
use of the article without the danger of burn-  
ing the hair.

A further object of the invention is to pro-  
vide a device of the class named in which  
35 either gas or liquid fuel may be employed at  
the option of the operator.

A further object of the invention is to pro-  
vide means whereby the intensity of the heat  
40 may be increased by a forced circulation of  
air, controllable by the operator.

Further objects and advantages of the in-  
vention will appear in the following descrip-  
tion, and the novel features thereof will be  
45 particularly pointed out in the appended  
claims.

In the drawings: Figure 1 is a side view of  
a curling iron embodying the invention. Fig.  
2 is a front view of the same. Fig. 3 is a rear  
50 view, with the stem partly turned, as in the

act of reversing. Fig. 4 is a central axial sec-  
tion, line  $x-x$  of Fig. 2. Fig. 5 is a trans-  
verse section, line  $y-y$  of Fig. 2. Fig. 6 shows  
in perspective certain retaining springs.

1 designates the handle which is hollow 55  
and comprises the metallic reservoir 2 and  
the non-conducting sheath 3, inclosing the  
reservoir. In the lower end of the handle,  
and formed by an extension of the cylindri-  
cal sides of the reservoir, is a filling cup 4, 60  
which communicates with the interior of the  
reservoir through a supply-opening 5, fitted  
with a screw-plug 6.

Extending longitudinally through the res-  
ervoir 2, and projecting at its lower end 65  
slightly beyond the end of the handle to form  
a nipple 7, is a feed-tube 8, which terminates  
at its upper end at the center of the upper end  
of the reservoir which extends slightly above  
the upper end of the handle to form a burner 70  
9. The tip 10 of the feed-tube is arranged at  
the center of the burner 9. To the nipple at  
the lower end of the feed-tube is connected a  
flexible tube 11, by means of which the oper-  
ator may induce a forced draft to increase 75  
the intensity of combustion at the burner.  
The interior of the reservoir, around the feed-  
tube is filled with raw cotton, asbestos, or  
other absorbent material, which extends up  
to the upper terminal of the reservoir and is 80  
covered with wire-gauze 12, to prevent dis-  
placement.

Arranged concentrically around the burner  
9 is a vertical guard 13, to protect the hand  
of the operator and prevent the extinguish- 85  
ment of the flame by drafts, &c.

14 represents a burner-tube, provided at its  
lower end with a trunco-conical enlargement  
15, whose interior forms a combustion cham-  
ber 16, and said enlargement fits over the 90  
burner, within the guard. The enlargement  
15 is hinged at one side to the burner and is  
provided at the opposite side with a catch 17  
to receive a spring latch or locking-tongue 18  
attached to the burner. The burner tube 14 95  
is provided with diametrically-opposite, lon-  
gitudinal slots 19, fitted with closures or doors,  
19<sup>a</sup> and 19<sup>b</sup>, respectively, actuating springs 20  
being provided to hold such closures or doors  
normally closed. The springs 20 are attached 100

to the front side of the burner tube by means of clips 21 and 22, and fit at their free ends in keepers 23 at the free edges of the closures.

The curling stem 24 is provided at an intermediate point with a head 25 which is pivotally mounted in the upper end of the burner tube, whereby, when the stem is axially-disposed, or arranged in its operative position, said head closes and fills the end of the burner-tube.

Retaining springs 26 and 27 are attached to the outer surface of the burner-tube and are provided at their upper ends with detents 28 and 29, respectively, to engage the head 25 to hold the stem in its operative position.

The upper edge of the closure or door 19<sup>a</sup> is beveled, as shown at 30 to enable it to be pushed aside and opened by the contact therewith of the stem, as the latter is turned or reversed, as shown in Fig. 3. The upper edge of the other closure, 19<sup>b</sup>, is square, as shown, as the stem is designed to be turned in one direction only.

The detent 28 at the upper end of the retaining spring 26, is depressed at its free or inner end, to enable the head 25 to deflect the spring as it is turned in the direction indicated by the arrow in Fig. 2, and to prevent the turning of the head in the opposite direction. The detent upon the upper end of the spring 27, is beveled at its outer side to enable the head 25 to deflect the same as it is turned in the direction indicated by said arrow in Fig. 2.

31 designates a spring-pressed clamp, pivotally mounted upon the burner-tube and provided with a concave nose 32 to engage the surface of the projecting portion of the stem.

The operation of the improved curling or crimping iron will be obvious from the above description, and it will be noted that while one end of the stem is in use (the same being far enough removed from the flame to prevent accident) the other end of the stem is being heated, the same being inclosed in the burner-tube. The enlargement at the lower end of the burner-tube is provided with a series of feet 33, which bear upon the upper end of the handle and form an air-space 34 through which air is admitted to the combustion chamber around the burner to support combustion. If the draft thus furnished is not sufficient under certain circumstances to produce the desired heat, the lips may be applied to the end of the flexible tube attached to the feed-tube and a forced draft produced. If preferred, the feed-tube may be connected, by means of a suitable flexible tube with a gas-jet, thus supplying gas to the burner instead of alcohol, oil, or other liquid fuel which is contained in the reservoir. When it is desired to reverse the stem, depress the thumb-hold 35, of the clamp, and strike the projecting end of the stem a light blow in the direction of the arrow shown in Fig. 2, thus turning the same to the position shown in Fig. 3, and then tapping the same sufficiently to cause the pre-

viously exposed end to swing into the burner-tube. The closures or doors return, automatically, to their closed positions.

It will be understood that changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

A cap 36, shown in dotted lines in Fig. 4, is provided to fit over the burner and close the same when the device is not in use, to prevent the evaporation and leakage of the fuel.

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

1. In a device of the class described, the combination with a handle, and heating devices carried thereby, of a reversible stem, and means for supporting the same, whereby one terminal of the stem is adjacent to the heating devices when the other terminal is in operative position, substantially as specified.

2. In a device of the class described, the combination with a burner-tube, a burner, and means for supplying fuel to the burner, of a reversible stem having one end inclosed within said tube and the other end exposed, substantially as specified.

3. In a device of the class described, a reservoir, a burner connected to the reservoir, and a burner-tube inclosing said burner, in combination with a stem having one end inclosed within the said tube and adapted to be reversed to inclose the other end, substantially as specified.

4. In a device of the class described, the combination with a tube, a burner located within said tube, and means for supplying fuel to the burner, of a reversible stem, pivotally mounted, at an intermediate point, in one end of said tube, and adapted to have either terminal inclosed within the tube, substantially as specified.

5. In a device of the class described, the combination with a handle portion, a burner and means for supplying fuel to the burner, of an oppositely-slotted burner-tube inclosing said burner, closures or doors fitting said slots, and a reversible stem, pivotally connected to the burner-tube and adapted to have either terminal arranged within the burner-tube, substantially as specified.

6. In a device of the class described, the combination with a handle portion, a burner and means for supplying fuel to the burner, of a burner-tube inclosing said burner and provided with diametrically-opposite slots, spring-actuated closures or doors fitting said slots and normally held closed, and a reversible stem, pivotally mounted upon the burner-tube and provided with means whereby as the stem is reversed the closures or doors are opened to release one terminal and receive the other, substantially as specified.

7. In a device of the class described, the combination with a handle portion, a burner and means for supplying fuel to the burner,

of a burner-tube provided with side-slots, spring-actuated closures or doors fitting said slots, a stem provided with a central head pivotally mounted in the end of the burner-tube—

5 whereby the stem is reversible to arrange either terminal within said tube, and retaining-springs attached to the burner-tube to engage the said head to lock the stem in its operative positions, substantially as specified.

10 8. In a device of the class described, the combination with a handle portion, a burner and means for supplying fuel to the burner, of a burner tube provided with opposite side-slots, spring-actuated closures fitted to said  
15 slots, one of such closures being provided with a beveled upper end, as described, a reversible stem provided with a head which is pivotally mounted in the end of the burner-tube, and retaining-springs provided with detents  
20 to engage said head, one of such detents being beveled and other being depressed at its extremity, substantially as specified.

9. In a device of the class described, the combination with a handle portion, a burner  
25 and means for supplying fuel to the burner, of a burner-tube provided with an enlarged or flared lower end which is hinged to the handle portion and incloses said burner to form a combustion-chamber, and a reversible  
30 stem having one terminal arranged within the burner-tube, substantially as specified.

10. In a device of the class described, a hollow handle portion inclosing a fuel reservoir and a burner communicating with the upper  
35 end of said reservoir, in combination with a burner-tube hinged to the upper end of the

handle portion to inclose said burner, and provided with feet to engage the same and provide air-spaces, and a stem carried by the burner-tube, substantially as specified. 40

11. In a device of the class described, a hollow handle portion inclosing a reservoir, a burner communicating with the upper end of said reservoir, and a guard flange surrounding such burner, in combination with a burner-tube inclosing said burner, fitting within the guard-flange and provided with air-spaces, means to connect the burner-tube to the handle-portion, and a stem carried by the burner-tube, substantially as specified. 45 50

12. In a device of the class described, a handle inclosing a reservoir, a burner communicating with the upper end of said reservoir, and a feed-tube communicating with the burner and provided with a flexible tube, in combination with a burner-tube and a stem carried thereby, substantially as specified. 55

13. In a device of the class described, a reservoir inclosed within the handle-portion and provided at one end with a cup, an inlet or supply opening and a plug to close the same, and provided at the other end with a burner, in combination with a burner-tube and stem, substantially as specified. 60

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 65

WILLIAM PENTONEY.

Witnesses:

A. M. COLLETT,  
FRANK MEEHLING.