

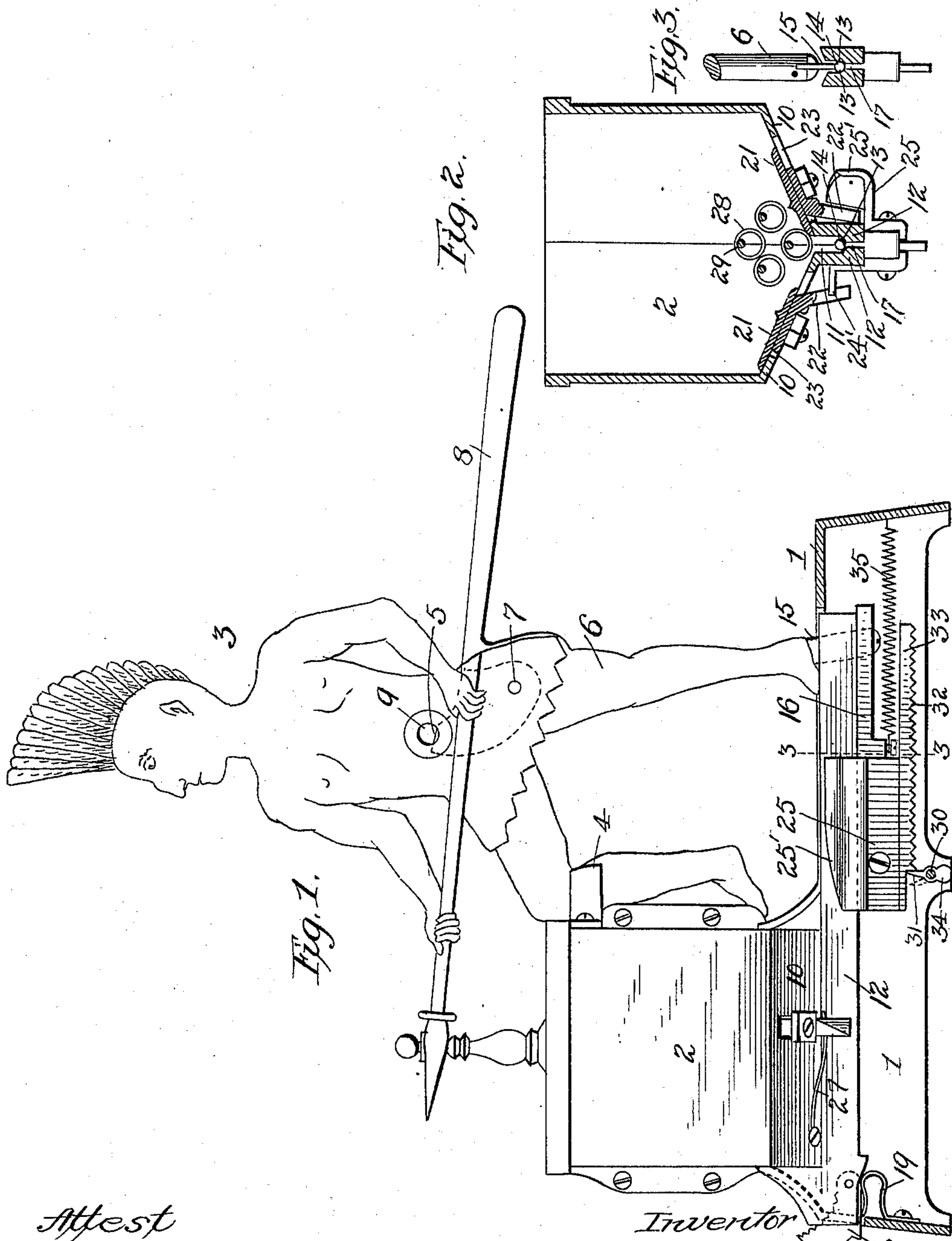
(No Model.)

2 Sheets—Sheet 1.

W. H. THOMPSON.
CIGAR CUTTER AND MATCH IGNITER.

No. 598,718.

Patented Feb. 8, 1898.



Attest
C. S. Middleton
L. B. Middleton

Inventor
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by Alexander Donaldson & Co
Attys.

(No Model.)

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Fig. 4.

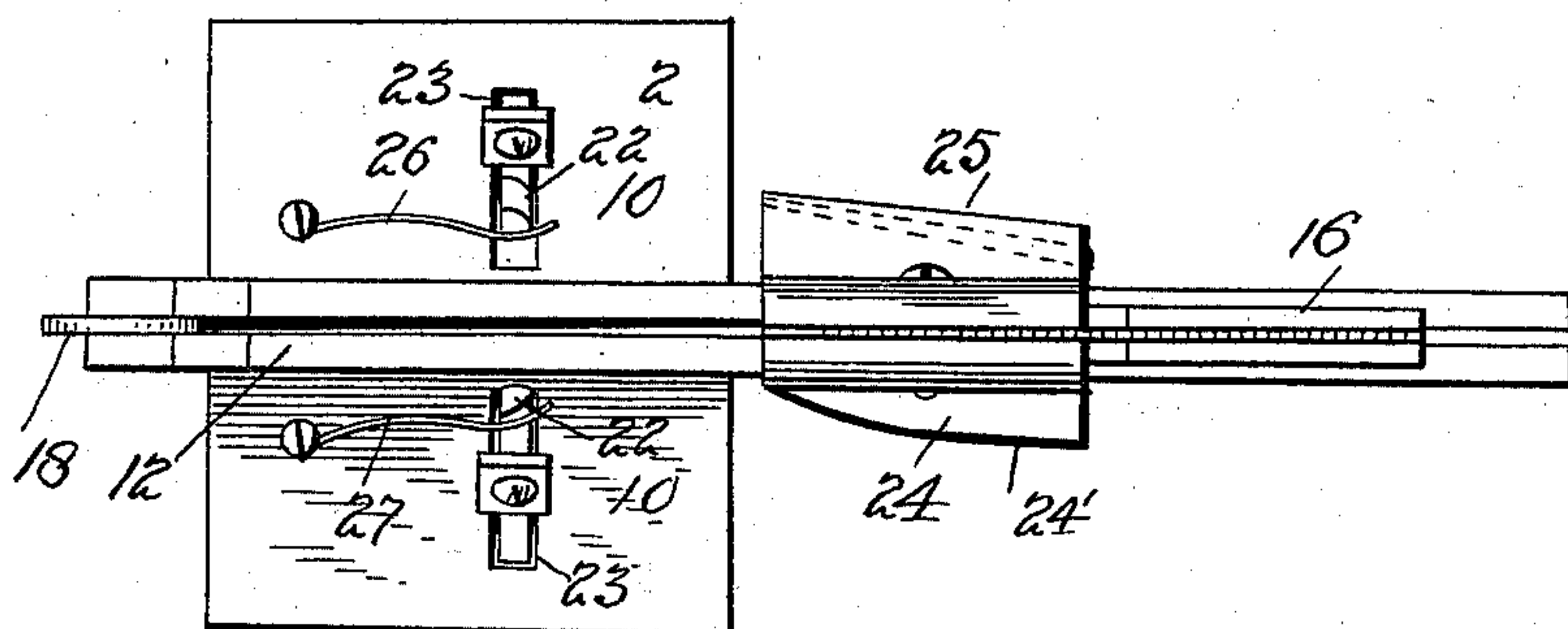
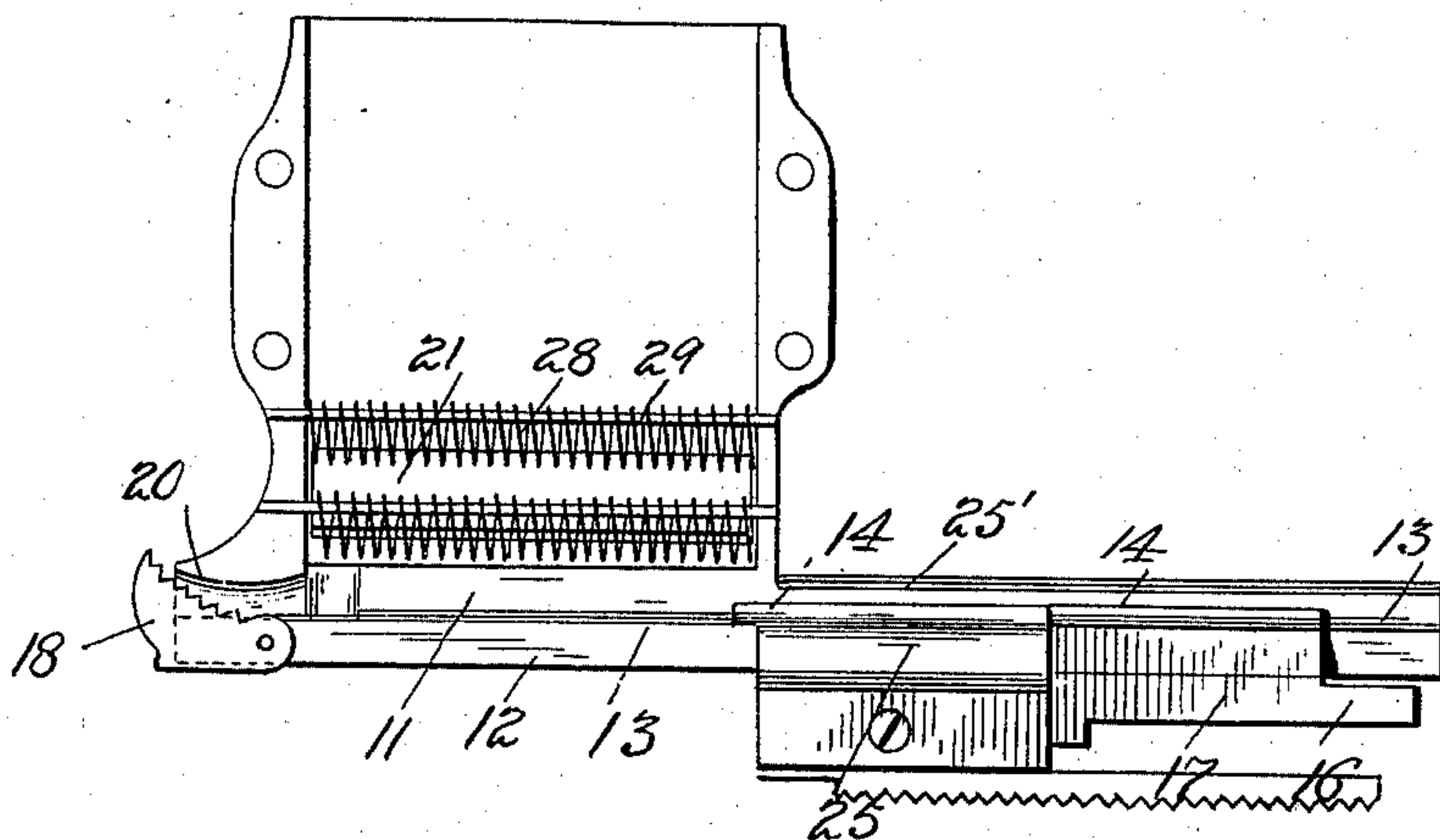


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM H. THOMPSON, OF EAST STROUDSBURG, PENNSYLVANIA.

CIGAR-CUTTER AND MATCH-IGNITER.

SPECIFICATION forming part of Letters Patent No. 598,718, dated February 8, 1898.

Application filed July 31, 1897. Serial No. 646,713. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. THOMPSON, a citizen of the United States, residing at East Stroudsburg, in the county of Monroe and State of Pennsylvania, have invented certain new and useful Improvements in Cigar-Cutters and Match-Igniters, of which the following is a specification, reference being had therein to the accompanying drawings.

It is the object of my invention to provide a combined cigar-cutter and match-igniting device whereby the operator upon depressing a single hand-lever or similar device may cut the cigar and also eject the match from its receptacle and light the same ready for its application to the cigar in lighting it.

My invention relates particularly to means whereby this simultaneous operation is performed through the manipulation of one lever and means for feeding the matches and preventing clogging of the same in the hopper.

In the accompanying drawings, Figure 1 is a side view of the invention with a part of the base-frame broken away. Fig. 2 is a transverse section through the hopper. Fig. 3 is a detail of a section in line 3 3 of Fig. 1. Fig. 4 shows the hopper and feed-operating devices in a bottom plan view; and Fig. 5 is a side view of one section of the hopper, showing its interior.

The device comprises a base portion 1, having a hopper 2 extending up therefrom at one end, while the figure of an Indian (marked 3) extends upwardly from the other end of the base, said figure being attached by clips 4 to the hopper. The cigar-cutter 5 is of any ordinary form and is attached to the leg 6 of the Indian, which is pivoted at 7, and this cutter when the lever 8 is depressed moves across an opening 9 in the figure, through which the end of the cigar is thrust, and thus the tip end is removed. The matches are placed in the hopper 2, which is provided with inclined bottom walls 10, and they are fed to the central delivery slot or channel 11, formed between the depending flanges 12, which are rigidly connected with the hopper. In this groove or channel and resting upon the shoulders 13 of the flanges a plunger 14 is arranged, and this is reciprocated through an extension 15 of the leg 6 of the Indian, which extension engages the tailpiece 16 of the plunger, it being con-

nected thereto through a web 17. As the plunger moves forward it engages the match which has fallen into the channel and forces it against a serrated igniter-plate 18, which is pivoted between the flanges 12 of the hopper-sections. This plate is under tension of a spring 19, and the match-head rubbing against the serrations will be ignited as it passes through the discharge-opening 20. It will be seen that both the cutting of a cigar and the ignition of the match are effected through the operation of the lever 8, connected with the leg of the Indian.

In order to feed the matches to the discharge channel or slot, I provide feed-plates 21, moving along the inclined bottom walls of the hopper toward and from the feed-channel. These plates have arms 22 attached to them, extending through slots 23 in the inclined walls of the hopper and into the path of cam-plates 24 25, which are attached to and move with the match-discharge plunger. The feed-plates are under tension of the springs 26 27, which engage the arms 22 in such a manner that the plate 21 on one side of the feed-channel is normally retracted from, while the plate on the other side is normally forced forward to, the feed-channel. The cams 24 25 have a reverse action, the former having a lateral flange 24' to engage the arm 22 and force the feed-plate backward, while at the same time the cam 25, by means of its upturned flange 25', engages the arm 22 of the opposite feed-plate and forces the same forward. These plates thus have the reciprocating movement simultaneous to each other and in opposite directions, so that as one plate is forcing a match forward to the feed-channel the other plate is retracting therefrom to take a fresh match.

In order to prevent the match in the hopper from clogging, I provide yielding separating devices, which act to distribute the matches as they fall toward the feed-channel and to separate them so that they will not arrive at the channel in a mass, but will be separated sufficiently to insure their passage to the feed-channel one by one. I use for this purpose a series of spiral springs 28, which are independent of the hopper and of each other and hang loosely upon rods 29 therein. One of these springs is arranged directly over the

feed-channel 11, and its lower side is at a less distance from the mouth of the channel than the thickness of a match, so that it must be forced aside slightly before a match can pass 5 and fall into the feed-channel, and it therefore acts to hold up the match while the first match is being discharged until the feed-plate forces the match by it into the channel. The other springs are arranged one directly 10 above and the others to one side and slightly above the spring first mentioned, and these act as distributors and separators to insure the passage of the matches one by one toward the feed-slot.

15 I have provided means to insure the proper discharge of the match when once the handle 8 is started on its movement, and I do this by providing an arrester to engage a series of serrations on the feed-plunger which will ar- 20 rest the backward movement thereof and prevent it from returning to normal position until it has been moved all the way forward, this consisting of an arrester 30, pivoted to the base and having a tooth 31 extending up 25 to engage a series of serrations 32 on a bar 33, connected with the plunger. The tooth 31 being longer than the distance between the pivot 30 and the bottom of the serrations 32 will, when the plunger is moved forward, 30 stand at a slight inclination toward the front, as shown in dotted lines in Fig. 1, so that it will engage the teeth and prevent backward movement until the bar 33 has passed entirely over it, when the arrester will then assume a 35 vertical position under the action of the weight 34, and upon the return of the plunger, through the force of its spring 35, Fig. 1, the said arrester will be free to incline in the other direction and thus allow the plunger to 40 return.

I do not wish to limit myself to spiral springs as the separating distributing means, as other yielding devices may be used, such as tubes or cylinders, and these may be hung from the 45 cross-rods in a manner similar to the springs shown.

I claim as my invention—

1. In combination in a match-igniting device, a hopper, a pair of feed-plates reciprocating therein, means for giving said plates 50 a reciprocating movement in opposite directions, a discharge-channel leading from the hopper and a plunger working in the said channel, substantially as described.

2. In combination, the hopper having a dis- 55 charge-channel, the discharge-plunger for the match, the alternately-reciprocating feed-plates and the cams moving with the discharge-plunger for reciprocating said plates, substantially as described. 60

3. In combination, a hopper having the flanges with the feed-channel between, the feed-plunger working in said channel, the cam-plates moving with said plunger, the feed-plates reciprocating along the hopper-bottom 65 toward the feed-channel in the hopper and the arms extending from said feed-plates into the path of the cams, substantially as described.

4. In combination, the hopper, the feeding 70 device, and the separating and distributing means independent of said feeding device, comprising a plurality of yielding tubular members, substantially as described.

5. In combination, the hopper, the feeding 75 means, and the independent yielding distributing device located within the hopper, substantially as described.

6. In combination, the feeding device, and the series of yielding distributing and sepa- 80 rating devices for the matches located above and independent of the feeding device, substantially as described.

7. In combination, the hopper, the series of cross-rods therein, feeding means and the 85 series of tubular members suspended from said rods, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. THOMPSON.

Witnesses:

HENRY E. COOPER,
C. S. MIDDLETON.