

No. 651,329.

Patented June 5, 1900.

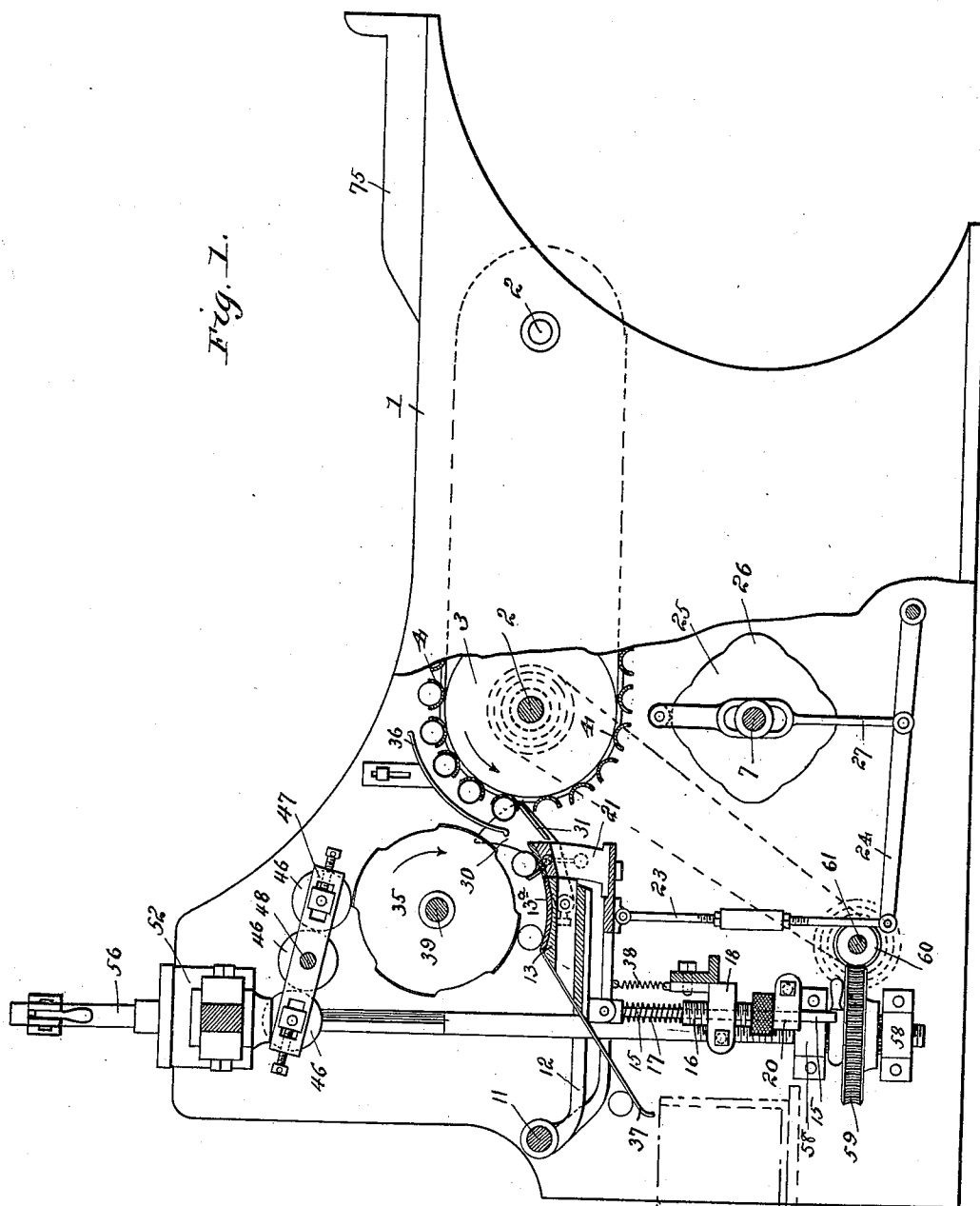
F. J. HAGEN.
CIGAR MARKING MACHINE.

(Application filed Sept. 21, 1899.)

(No Model.)

4 Sheets—Sheet 1.

Fig. 1.



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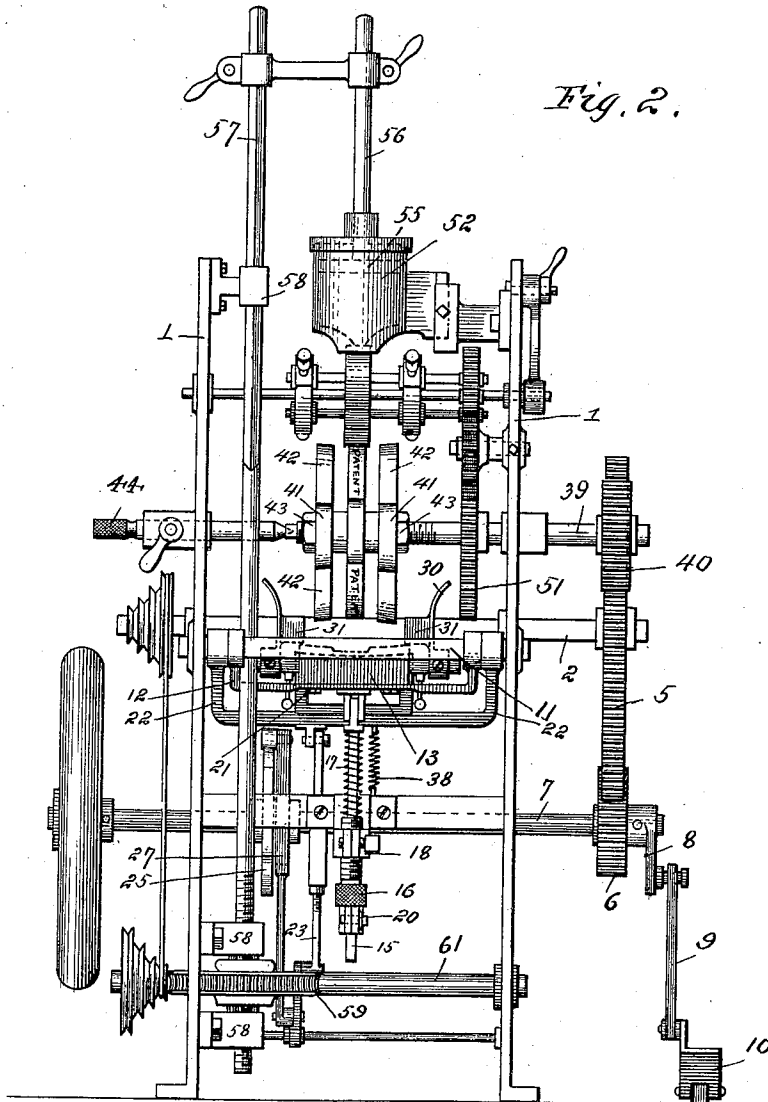
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Fig. 3.

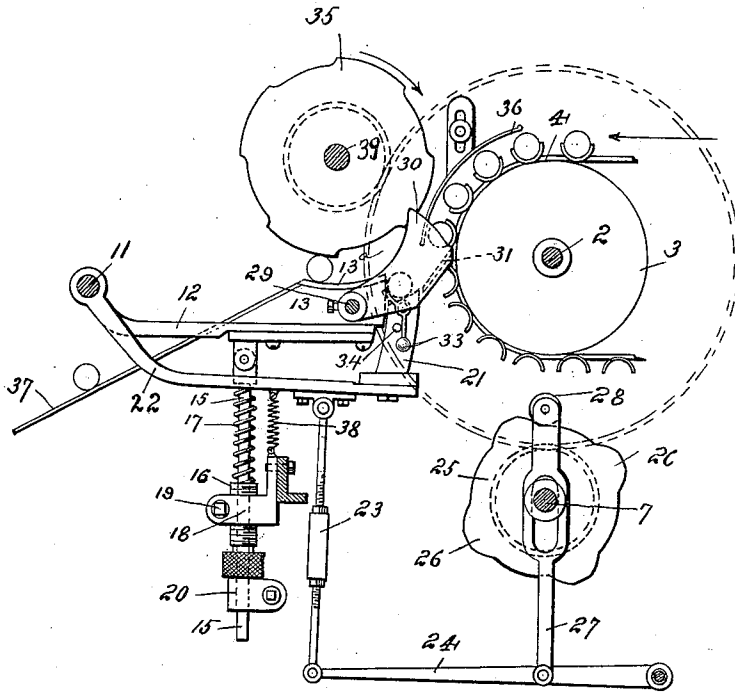
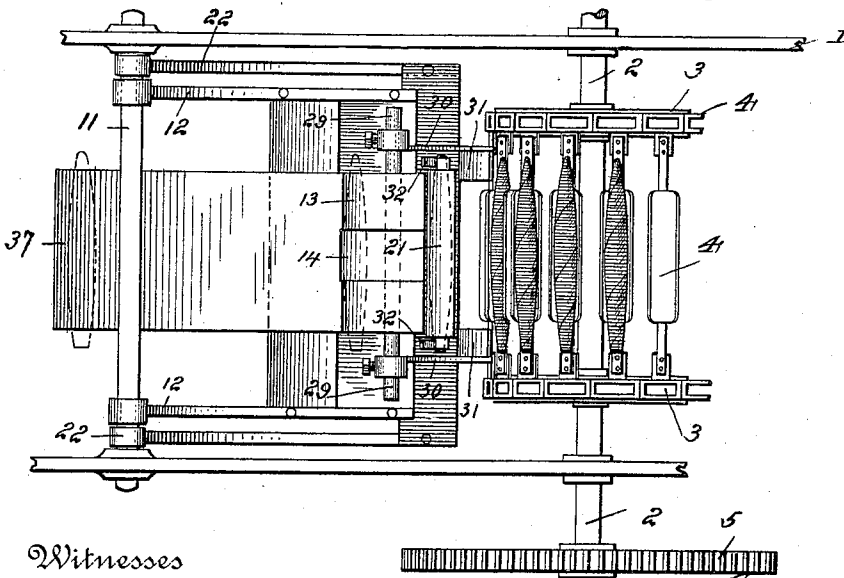


Fig. 4.



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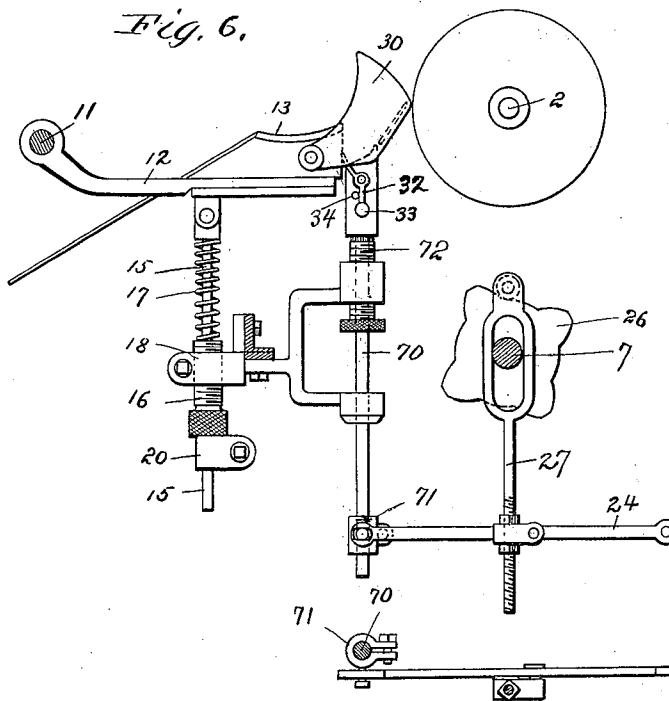
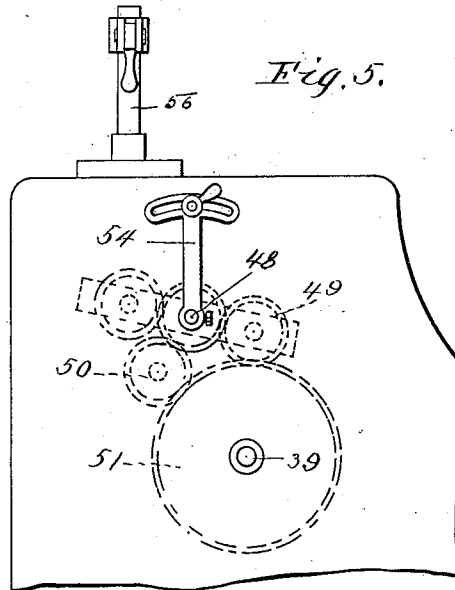
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4 Sheets—Sheet 4.



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UNITED STATES PATENT OFFICE.

FERDINAND J. HAGEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
NATHAN WEISS, OF SAME PLACE.

CIGAR-MARKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 651,329, dated June 5, 1900.

Application filed September 21, 1899. Serial No. 731,220. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND J. HAGEN, a citizen of the United States, and a resident of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Cigar-Marking Machines, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view of the machine. Fig. 2 is a rear end view thereof, some of the parts being omitted. Fig. 3 is a detail sectional view of the marking devices. Fig. 4 is a detail plan view thereof, the marking-wheels 35, friction-wheels 41, and shield 36 being omitted. Fig. 5 is a detail side elevation of the means for feeding the marking fluid to the marking-dies, and Fig. 6 is a detail sectional view showing a modification of the means for lifting the cigars to the marking-table.

The objects of this invention are to provide a machine for marking cigars without perforating or otherwise damaging the wrappers thereof and to provide mechanism whereby these marks or brands will be placed annularly or transversely of the cigars rather than longitudinally thereof.

Referring to the various parts by numerals, 1 designates the sides of a suitable supporting-frame, in the upper front end of which are mounted two horizontal transverse shafts 2, which carry chain wheels 3, upon which runs the cigar-carrying belt 4. On the outer end of the rearmost shaft 2 is mounted a large gear 5, which meshes with a smaller gear 6, carried by a transverse shaft 7, which is mounted in the frame below the shaft 2. On the outer end of this latter shaft is secured a crank 8, to which is pivoted the pitman 9, which is in turn connected to an operating-treadle 10.

At the rear end of the frame, slightly below the shafts 2, is mounted a transverse rod 11, on which is pivoted the two forward-extending arms 12, which carry at their forward ends, slightly below the center of the sprocket-wheel, the concaved marking-table 13, which is covered on its upper surface with rubber or similar elastic material 13^a. The center of this marking-table is formed with a depressed or cut-out portion 14, which extends

from front to rear, as shown, for a purpose which will hereinafter appear. This table is yieldingly supported by means of a vertical bar 15, pivoted at its upper end to the under side of the table, its lower end passing loosely through an adjustable stop 16. Surrounding this rod 15, between the upper end of the stop 16 and the pivot of said rod with the table, is a spring 17, which resiliently supports the table. The stop 16 is threaded through a split sleeve 18, and when said stop is properly adjusted the sleeve is clamped about the stop by a bolt 19 and rigidly held in place. On the rod 15, below the stop 16, is an adjustable collar 20, which contacts with the lower end of the stop 16 and limits the upward movement of the table.

At the forward end of the marking-table, between the said table and the carrying-chain, is mounted a vertically-moving cigar receiving and lifting block 21, which is carried at the forward ends of two arms 22, which extend rearward, one at each side of the frame, and are pivoted at their rear ends on the bar 11. To the under side of this lifting-block is pivoted a depending rod 23, whose lower end is pivoted to the rear end of a lever 24, which extends forward under the shaft 7, its front end being pivoted to a rigid part of the frame. Mounted rigidly on the shaft 7 is a cam 25, having four operating projections 26, which are equal distances apart. Pivotaly connected to the lever 24 is a pitman 27, which carries at its upper end a roller 28, which bears on the cam 25. Projecting from the sides of the marking-table is a transverse rod 29, on the ends of which are adjustably mounted the guide-plates 30, one of said plates being mounted on each end of said rod. These plates are vertically arranged and extend forward and upward from the rod and are rotatably and laterally adjustable thereon. Extending inward from the forward upper ends of these guide-plates are short inclined plates 31, which engage under the ends of the cigars in the belt and detach them from the belt should they stick thereto and guide them down to the receiving and lifting block 21, the lower rear end of these plates 31 being adjacent the front edge of said block when said block is in its lowermost position, as shown

in Fig. 3. On each side of the block 21 is pivoted a finger 32, which projects above the upper surface of said block and when the block is raised holds the cigar thereon until said cigar is engaged by the marking-wheel 35. These fingers are weighted at 33 to normally hold them in their upright position, and a stop 34 is provided to prevent them swinging back and forth after they have released a cigar. To normally hold the cigar-lifting block in its depressed position, a spring 38 is employed, and to prevent the cigars leaving the carrying-belt too soon the adjustable shield 36 is provided. Carried by the marking-table is a rearward-extending inclined way 37, down which the marked cigars pass.

The marking-wheel is mounted on a shaft 39 and is in the transverse center of the machine directly over the center of the cut-out portion 14 of the marking-table. It is provided with four marking-surfaces equal distances apart and corresponding to the four operating projections on the cam 25. The outer end of shaft 39 is provided with a gear 40, which meshes with gear 5 and is equal in size to gear 6, so that the marking-wheel and the cam 25 will rotate in unison, and the gear 5 on shaft 2 is of such size that it will deliver four cigars to be marked during each revolution of the marking-wheel and the cam 25. On the shaft 39, one on each side of the marking-wheel and a short distance therefrom, are two friction-wheels 41, which are provided with four cigar-engaging surfaces 42, which correspond to the printing-surfaces on the marking-wheel. These are so placed that they engage the cigars slightly before the printing-surface, so that each cigar will be firmly held during printing operation. These friction-wheels are slightly beveled, as shown in Fig. 2, to conform to the outline of the cigars. To removably secure the marking-wheel and friction-wheels on their supporting-shaft, said shaft is threaded at its inner end and the said wheels secured thereon by means of suitable nuts 43. The inner end of this shaft is supported by means of an adjustable centering-pin 44, which projects inward from the frame 1 and is axially in line with the center of shaft 39. By means of this construction marking-wheels of various designs may be readily secured to said shaft. The upper surfaces of the marking-table and the block 21 are concaved from front to rear and form an arc of a circle struck from the center of the shaft 39, and the space between the marking-wheel and the said concaved surfaces is just sufficient to permit a cigar to pass there-through under a slight pressure from the rotating marking-wheel and friction-wheels. The table and the lifting-block are also curved slightly longitudinally to conform to the tapering contour of the cigars.

To deliver the marking liquid to the marking-wheel, a series of rollers 46, of gelatin or other suitable material, are mounted in a

frame 47, which frame is rigidly secured to and is supported by a rocking rod 48, journaled in frame 1. These rollers bear against each other and are driven by means of gears 49, which mesh with a gear 50, driven by a gear 51 on the shaft 39 of the marking-wheel, these gears being so arranged that the rollers 46 rotate at the same surface speed as the marking-wheel, while the rear upper roller 46 receives the marking fluid from the vertically-adjustable holder 52. The two outer rollers 46 are adjustable in the frame 47, and the whole frame may be rocked by lever 54 and secured in the desired position to obtain the desired operation of this mechanism for distributing the marking fluid.

To force the liquid from the holder 52, a piston 55 is placed therein, and its piston-rod 56 is connected rigidly to a vertical bar 57, which moves vertically in guides 58. The lower end of this bar is threaded, and threaded thereon and confined between two guides is a worm-wheel 59. Engaging said worm-wheel is a worm 60, carried by a shaft 61, which is driven by a belt from shaft 2.

In Fig. 6 is shown a modification of the means for lifting the cigars up to the marking-table. In this form the block 21 is mounted on the upper end of a rod 70, which is vertically reciprocated through suitable guides by means of the cam 25, operating the pitman 27, said pitman being adjustably and pivotally connected to the lever 24 and this lever being connected by a pin and slot to a collar 71, which is adjustably connected to the lower end of the rod 70. To limit the downward movement of the lifting-block, an adjustable stop 72, which engages the under side of said block, is mounted on one of the guides of the rod 70.

In operation the cigars are fed from the table 75 to the chain 4, and as the shaft 7 is rotated by means of the treadle the chain is moved rearward and a cigar is dropped on the lifting-block while said block is in its lowermost position. The movement of the cam 25 is so timed that as soon as a cigar is received on the block 21 said block is raised and the cigar brought to a level with the table 13 and in the path of the friction-wheels and marking-wheels. The movement of these wheels is so timed that they engage the cigar immediately when it is raised. The fingers 32 hold the cigar on the block until it is engaged by the wheels, when said fingers are automatically turned down and the cigar is rolled onto the table 13. The table is cut out at 14, so that the marking will not be marred as the cigar rolls over the table. By yieldingly supporting the table and covering its upper surface with rubber the cigars may be marked very rapidly without injury to their outer wrappers.

It will be observed that my invention is not confined to the specific features of construction shown and described, nor do I desire to limit myself to marking cigars alone, as the

machine is capable of use for marking other articles, especially those that may be rotated during the marking operation.

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

1. In a marking-machine, the combination of a feed-belt for feeding the cigars to the marking mechanism, a resiliently-supported marking-table to receive the cigars from the belt, this table carrying a pair of guide-plates 30 extending on either side of the articles on the feed-belt, a rotary marking device adapted to engage the articles to be marked on the table and roll them over said table during the marking operation, and a device located between the feed-belt, guide-plates and marking-table and adapted to deliver the articles in succession to the marking-table, and means for operating said mechanism.

2. In a cigar-marking machine, the combination of a marking-table, a belt for feeding cigars to said table, a marking device to engage the cigars on the table and roll them thereon during the marking operation, a pair of guide-plates 30 carried by the table and extending on either side of the cigars on the belt and carrying a device to remove the cigars from the belt, and a device intermediate the belt and the table to receive the cigars and deliver them to the marking-table.

3. In a cigar-marking machine, the combination of a marking-table, means for delivering cigars to said table, a movable marking device operating transversely of the cigar and engaging the cigar on the table and rolling it thereon during the marking operation, and independent devices adapted to engage the cigar on either side of the marking device and hold it while being rolled.

4. In a cigar-marking machine, the combination of a marking-table, means for delivering cigars to said table, a rotary marking device to engage the cigar about midway its length while on the table and roll it thereon during the marking operation and deliver it from said table when the marking operation is completed, and a rotary friction-wheel on either side of the marking device adapted to engage and hold the cigars at either side of their centers while being rolled and marked.

5. In a cigar-marking machine, the combination of a marking-table, means for delivering the cigars thereto, a marking device to engage the cigar and roll it on the marking-table during the marking operation, and a device for engaging the cigar just before the marking device to hold said cigar firmly during the marking operation.

6. In a cigar-marking machine, the combination of a feeding-belt, a lifting-block for receiving the cigars one by one from the belt, means for raising said lifting-block to bring the cigar thereon into the path of the marking device, a rotary marking device to engage said raised cigar, a marking-table to receive

the cigar from the lifting-block, the marking device rolling the cigar over said table during the marking operation.

7. In a cigar-marking machine, the combination of a feeding-belt, a lifting-block for receiving the cigars from the belt, means for guiding the cigars from the belt to the lifting-block, means for raising said lifting-block to bring the cigars into the path of the marking device, a rotary marking device to engage said raised cigars, a marking-table to receive the cigars from the lifting-block, the marking device rolling the cigar over said table during the marking operation.

8. In a cigar-marking machine, the combination of a feeding-belt, a marking device, a lifting-block to receive the cigars from the belt, means for raising said block to bring the cigars into the path of the marking device, and devices to hold the cigar on said lifting-block until it is engaged by the marking device.

9. In a machine for marking cigars and other articles, the combination of a frame, a means for carrying or feeding the cigars or other articles, a marking-table, a device for receiving the articles from the carrier, a stop device for temporarily holding the cigars on the receiving device in juxtaposition to the marking-table, a device adapted to automatically engage the articles and roll them over the marking-table, and marking devices.

10. In a machine for marking rotatable devices, the combination of a frame, means for feeding the articles, a marking-table and means for rolling the articles over the same, a marking device, an intermediate movable device adapted to receive the articles in succession as they drop from the feed device and deliver them to the marking-table, this device being normally depressed, and means for raising said device to a point approximately on a level with the marking-table.

11. In a machine for marking rotatable articles, the combination of a frame, a marking-table, marking devices, a device for feeding the articles, a device intermediate the table and the feed devices and carrying a pivoted trip extending into the path of the articles and adapted to hold them in juxtaposition to the table, and a device for frictionally engaging the articles while thus held and rolling them onto the marking-table.

12. In a machine for marking rotatable articles, the combination of a frame, a marking-table, feed devices, a part supported intermediate the table and the feed devices and adapted to receive the articles in succession, an automatic trip carried by said part, and a device adapted to engage the articles and deliver them to the marking-table from said part.

13. In a machine for marking articles, the combination of a frame, a marking-table, a marking device, a feed device, a lifting-block vertically movable between the table and the

feed device and adapted to receive the articles in succession from the feed device and hold them temporarily in juxtaposition to the marking-table, and means for automatically delivering the articles to the table and moving them across the same.

14. In a marking-machine, the combination of a resiliently-supported marking-table, a marking device and means for rolling the articles across the table while they are being marked, a feed-belt adjacent the receiving end of the marking-table, a pair of plates, as 30, carried by the marking-table and extending toward the feed-belt and lying on oppo-

site sides of the articles as they approach the marking-table, these plates being adapted to move vertically with the table as the same yields, and means for receiving the articles from the belt and delivering them to the table, substantially as set forth.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 18th day of September, 1899.

FERDINAND J. HAGEN.

Witnesses:

JOSEPH KURTZ,
CHARLES KURTZ.