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(54) **CIGAR MOLD**

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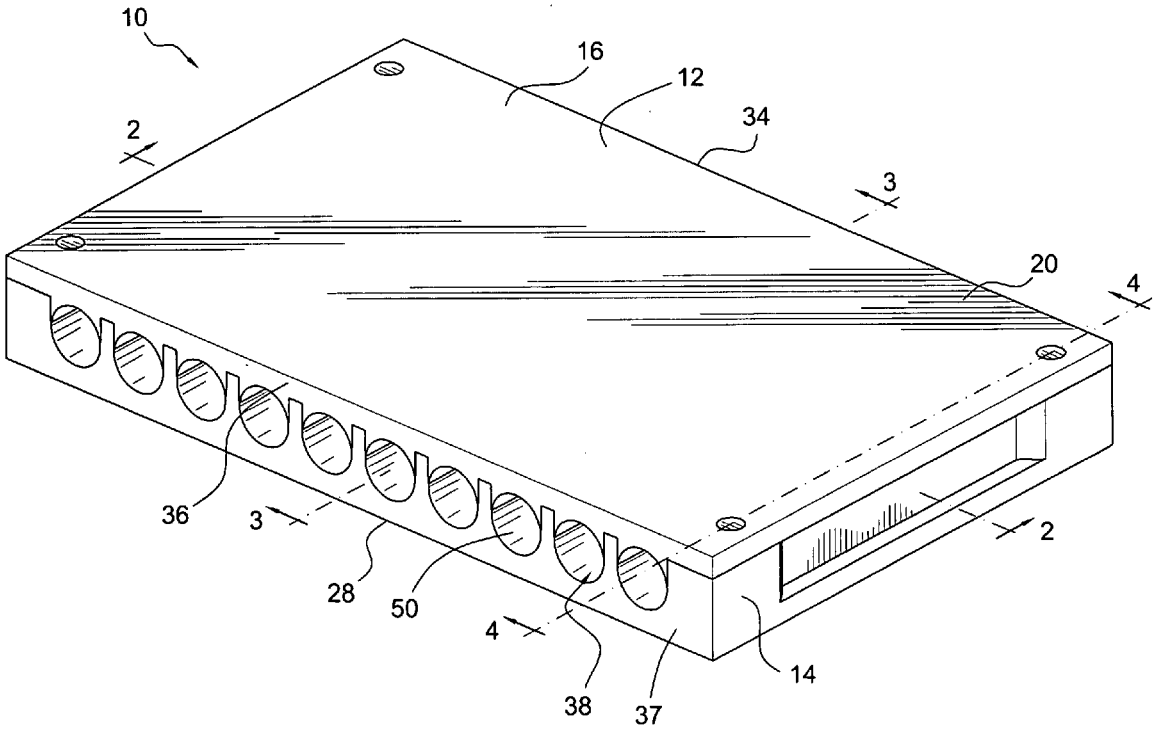
(57) **ABSTRACT**

A cigar mold includes a top mold member having a top surface and a bottom surface, and at least one upper mold recess is formed along the bottom surface of the top mold member. The cigar mold also includes a lower mold member having a bottom surface and a top surface, and at least one lower mold recess formed along the top surface of the bottom mold member. The upper mold recess mates with the lower mold recess to define a completely circular cigar mold cavity. The cigar mold cavity includes an open first end and a closed second end. The second end of the cigar mold cavity is substantially spherical and includes a diameter which is slightly larger than the diameter of the remainder of the cigar mold cavity as it extends between the first end and the second end.



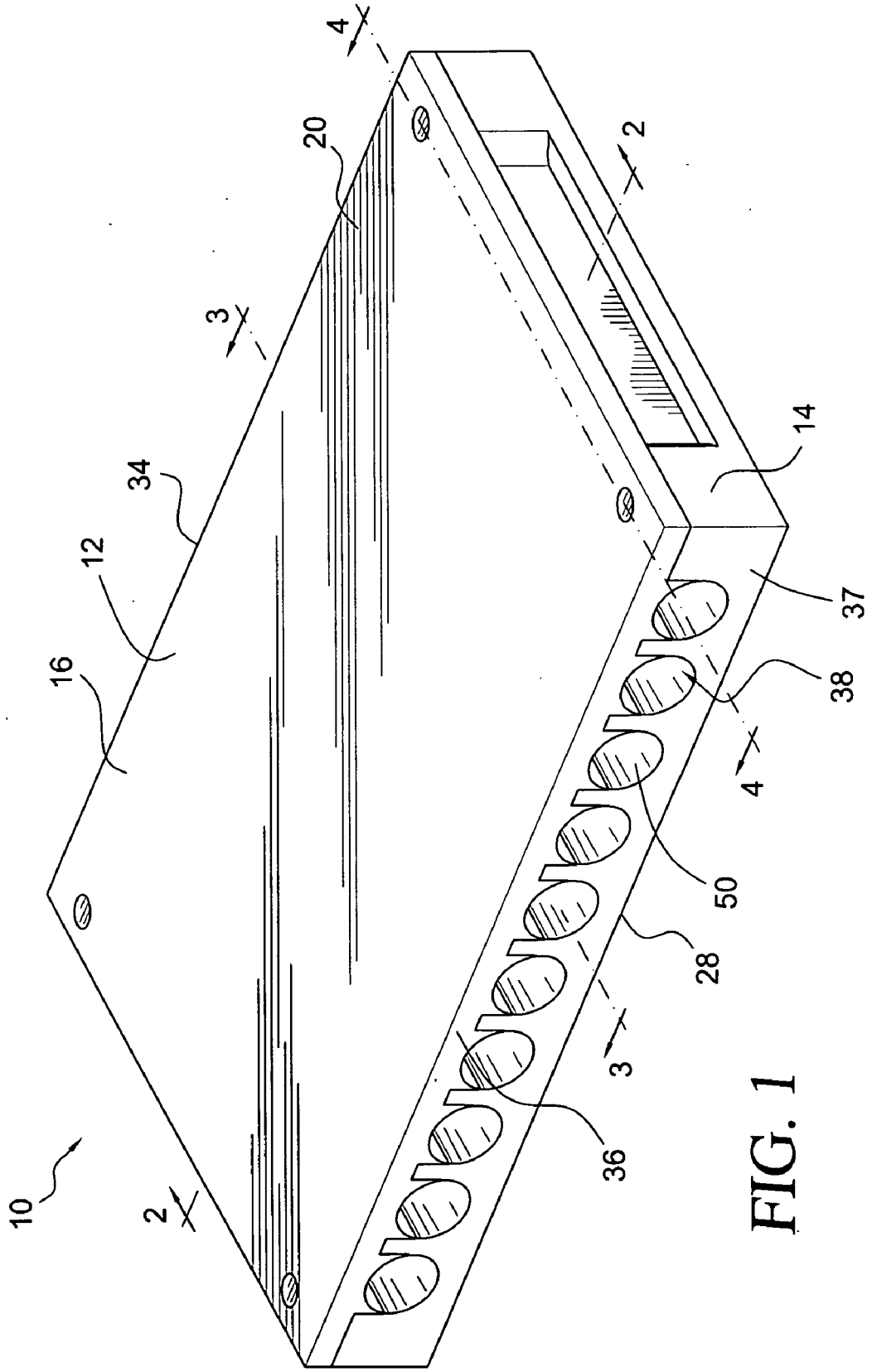


FIG. 1

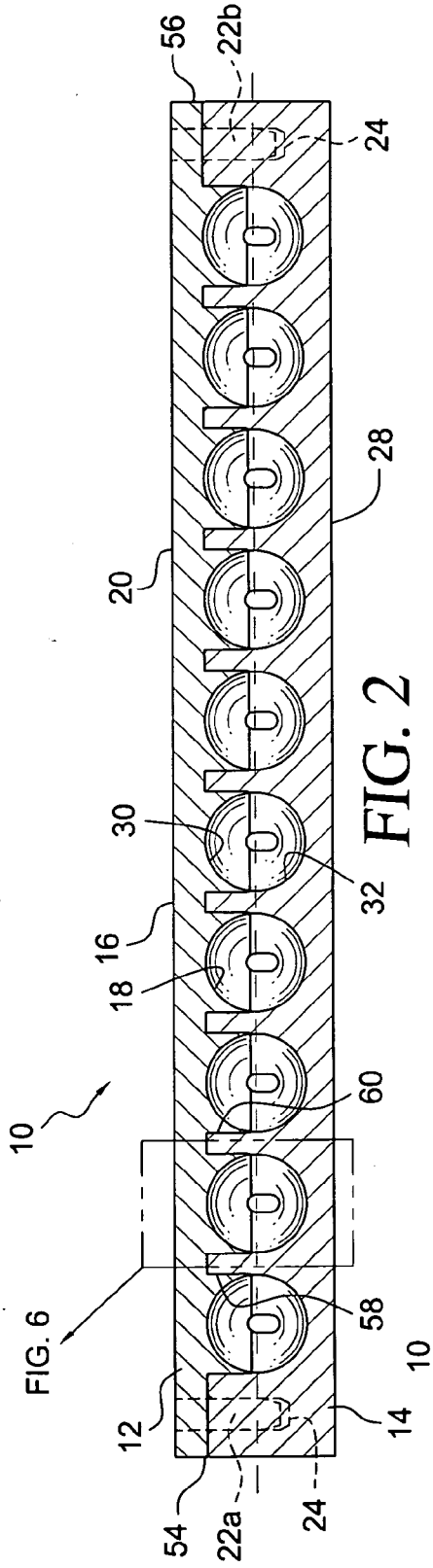


FIG. 2

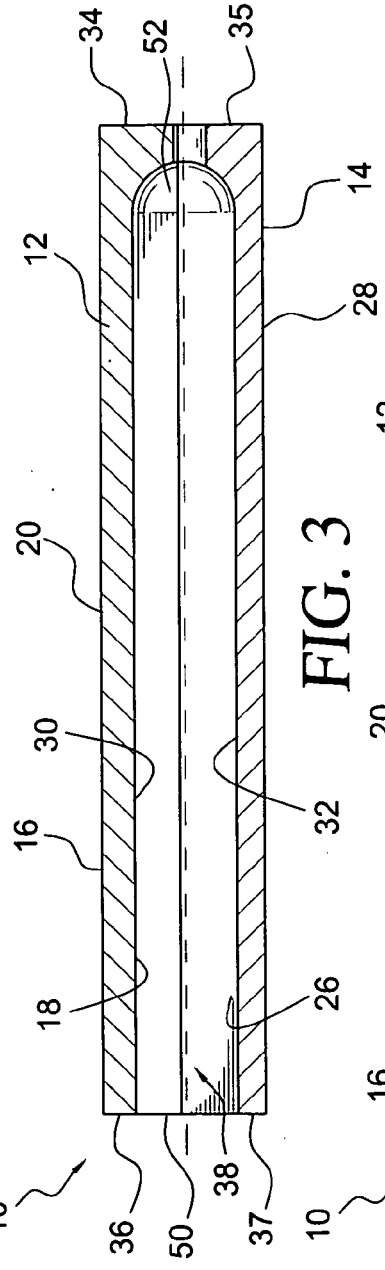


FIG. 3

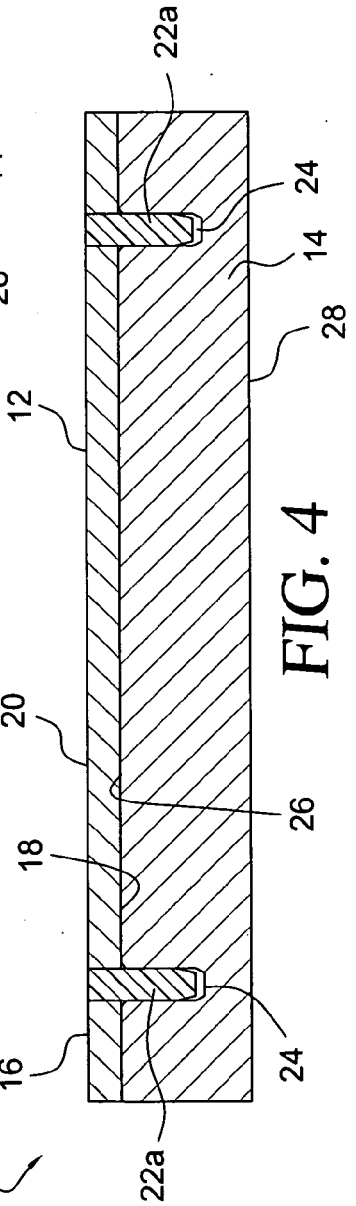


FIG. 4

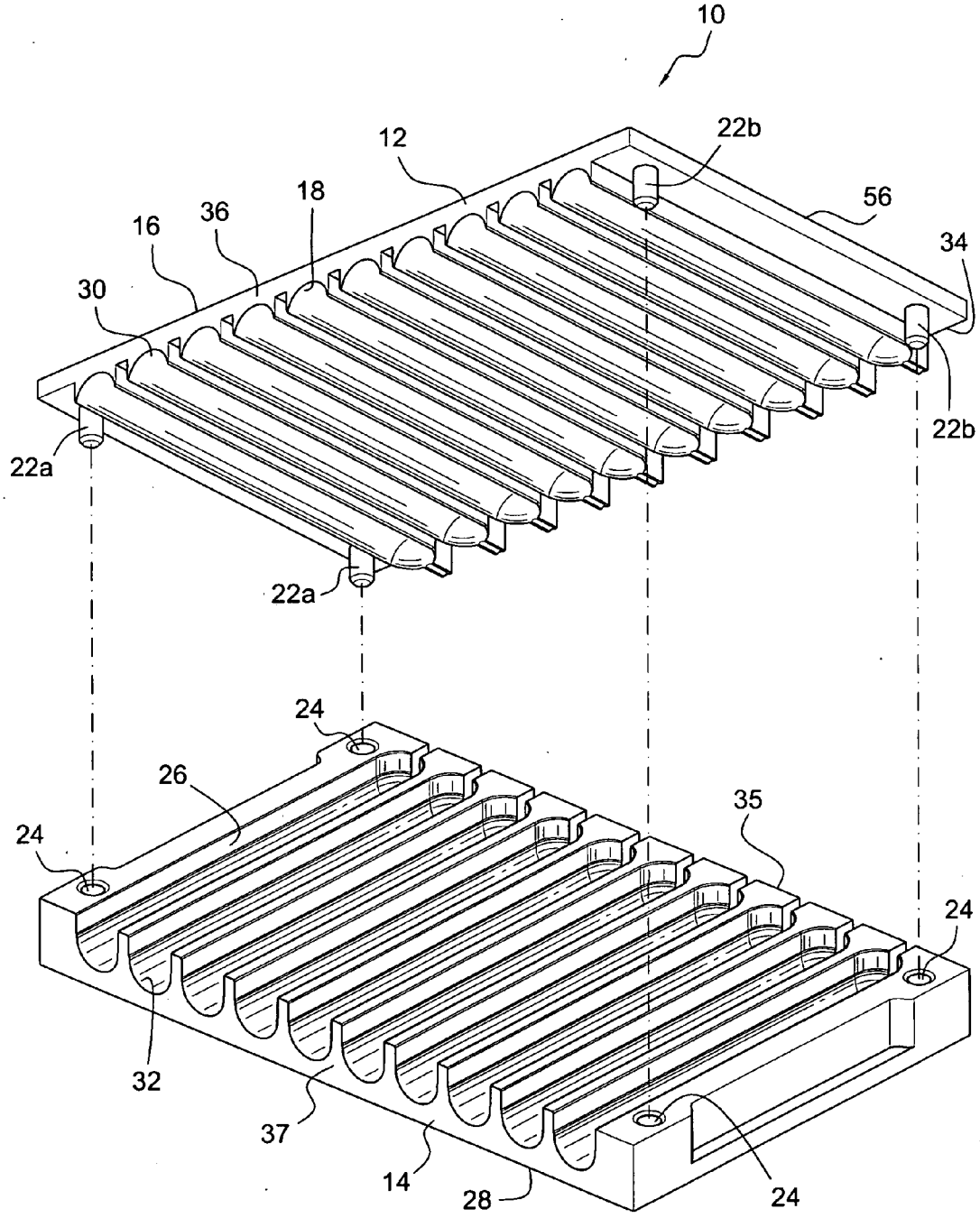


FIG. 5

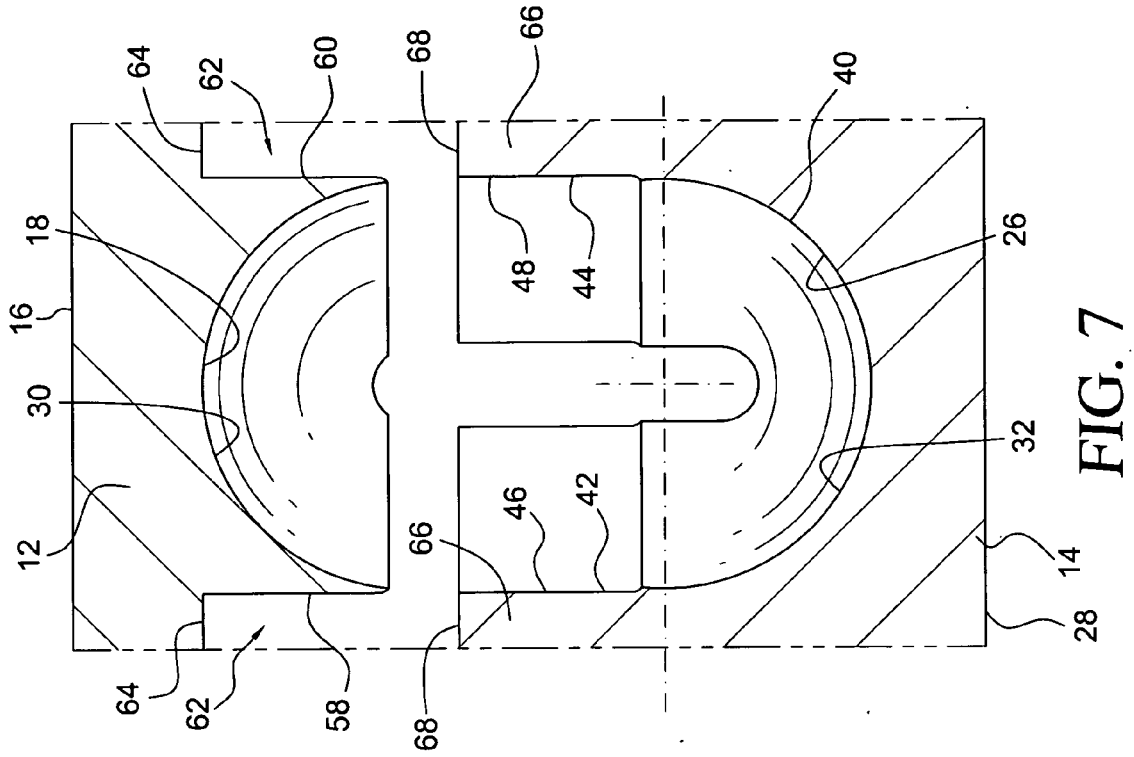

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FIG. 7

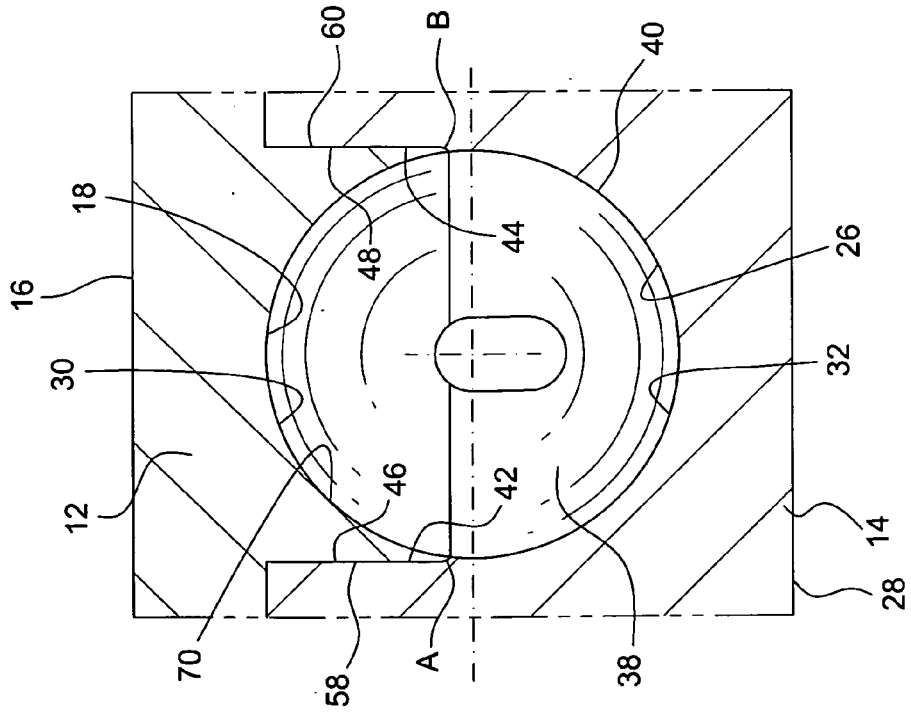
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FIG. 6

CIGAR MOLD

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Patent Application Ser. No. 61/080,908, entitled "CIGAR MOLD", filed Jul. 15, 2008.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The invention relates to a cigar mold. More particularly, the invention relates to a cigar mold configured for creating cigars having a round look.

[0004] 2. Description of the Related Art

[0005] Cigar molds have been manufactured and used in the pressing of cigars for some time. These molds allow manufacturers to roll and press cigars in an efficient manner. However, cigar molds that currently available exhibit shortcomings which have not yet been addressed within the industry. One such shortcoming is that the molds are made from wood and don't last very long. Another is that a completely circular cavity is not formed and, as such, the tobacco gets pinched during turning. The present invention attempts to address these shortcomings by providing the present cigar mold designed to improve upon the process of manufacturing cigars.

SUMMARY OF THE INVENTION

[0006] It is, therefore, an object of the present invention to provide a cigar mold including a top mold member having a top surface and a bottom surface, and at least one upper mold recess formed along the bottom surface of the top mold member. The cigar mold also includes a lower mold member having a bottom surface and a top surface, and at least one lower mold recess formed along the top surface of the bottom mold member. The upper mold recess mates with the lower mold recess to define a completely circular cigar mold cavity. The cigar mold cavity includes an open first end and a closed second end. The second end of the cigar mold cavity is substantially spherical and includes a diameter which is slightly larger than the diameter of the remainder of the cigar mold cavity as it extends between the first end and the second end.

[0007] It is also an object of the present invention to provide a cigar mold manufactured from a polymeric material.

[0008] It is another object of the present invention to provide a cigar mold including alignment pegs shaped and dimensioned for selective seating within matingly shaped alignment recesses for maintaining the top mold member and the bottom mold member in an aligned configuration.

[0009] It is a further object of the present invention to provide a cigar mold wherein the bottom surface of the top mold member includes a plurality of alignment pegs shaped and dimensioned for selective seating within matingly shaped alignment recesses formed in the top surface of the bottom mold member.

[0010] It is also an object of the present invention to provide a cigar mold wherein the cigar mold includes ten cigar mold cavities.

[0011] It is another object of the present invention to provide a cigar mold wherein the cigar mold cavity includes no flat surfaces and is completely round.

[0012] It is a further object of the present invention to provide a cigar mold wherein the upper mold recess defines an arcuate shape having a predefined radius of curvature.

[0013] It is also an object of the present invention to provide a cigar mold wherein the lower mold recess includes a lower arcuate portion which defines a continuous arcuate surface having a radius of curvature identical with that of the upper mold recess.

[0014] It is another object of the present invention to provide a cigar mold wherein the lower mold recess includes first and second upper edges, and each of the first and second upper edges includes a routed section formed to accommodate an outer wall of the upper mold recess.

[0015] It is another object of the present invention to provide a cigar mold wherein the upper mold recess defines an arcuate shape having a predefined radius of curvature forming an arc of less than 180 degrees.

[0016] Yet another object of the present invention is to provide a cigar mold wherein the lower mold recess includes a lower arcuate portion which defines a continuous arcuate surface having a radius of curvature identical with that of the upper mold recess and forming an arc of greater than 180 degrees.

[0017] Still another object of the present invention is to provide a mold wherein the arc formed by upper mold recess is smaller than the arc formed by the lower mold recess.

[0018] Other objects and advantages of the present invention will become apparent from the following detailed description when viewed in conjunction with the accompanying drawings, which set forth certain embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] FIG. **1** is a perspective view of the present cigar mold.

[0020] FIG. **2** is a cross sectional view of the cigar mold along the line **2-2** in FIG. **1**.

[0021] FIG. **3** is a cross sectional view of the cigar mold along the line **3-3** in FIG. **1**.

[0022] FIG. **4** is a cross sectional view of the cigar mold along the line **4-4** in FIG. **1**.

[0023] FIG. **5** is an exploded perspective view of the present cigar mold.

[0024] FIG. **6** is a detailed cross sectional view of the cross section shown in FIG. **2**.

[0025] FIG. **7** shows a cross section view of the cigar mold with the top mold member and the bottom mold member separated.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0026] The detailed embodiment of the present invention is disclosed herein. It should be understood, however, that the disclosed embodiment is merely exemplary of the invention, which may be embodied in various forms. Therefore, the details disclosed herein are not to be interpreted as limiting, but merely as a basis for teaching one skilled in the art how to make and/or use the invention.

[0027] In accordance with the present invention, and with reference to FIGS. **1** to **7**, a cigar mold **10** is disclosed. The cigar mold **10** includes a top mold member **12** and a bottom mold member **14**. Both the top mold member **12** and the bottom mold member **14** are manufactured from polymeric

materials designed for easy cleaning, convenient fabrication, and long life. In accordance with a preferred embodiment, the top and bottom mold members **12**,**14** are manufactured from high density polyethylene although other materials may be used without departing from the spirit of the present invention. The top mold member **12** includes a planar, top surface **16** and a bottom surface **18**. The top surface **16** is substantially smooth and defines part of the outer surface **20** of the present cigar mold **10** while the bottom surface **18** includes various functional structures utilized in the manufacture of cigars in accordance with the present invention and are discussed below in greater detail.

[0028] The bottom surface **18** of the top mold member **12** includes four downwardly oriented alignment pegs **22***a*, **22***b*, in particular, a pair of left side alignment pegs **22***a* and a pair of right side alignment pegs **22***b*, adjacent the right and left side lateral edges **54**, **56** of the top mold member **12**. The alignment pegs **22***a*, **22***b* are shaped and dimensioned for selective seating within matingly shaped alignment recesses **24** formed in the top surface **26** of the bottom mold member **14** to maintain the top mold member **12** and the bottom mold member **14** in aligned configuration. Positioned between the left side alignment pegs **22***a* and the right side alignment pegs **22***b* are a plurality of upper mold recesses **30** which mate with similar lower mold recesses **32** formed along the top surface **26** of the bottom mold member **14**. The exact structure of these upper mold recesses **30** and the lower mold recesses **32** will be discussed below in greater detail as they form an important part of the present invention.

[0029] As discussed above, the bottom mold member **14** is shaped and dimensioned for mating with the top mold member **12**. The bottom mold member **14** includes a planar, bottom surface **28** which forms the base of the present cigar mold **10**. The top surface **26** of the bottom mold member **14** includes a plurality of alignment recesses **24** shaped and dimensioned for mating engagement with the alignment pegs **22***a*, **22***b* of the top mold member **12** as discussed above. The top surface **26** of the bottom mold member **14** also includes a plurality of lower mold recesses **32** shaped and dimensioned for alignment with the various upper mold recesses **30** of the top mold member **12**.

[0030] The upper mold recesses **30** are longitudinally extending and extend from a top edge **34** of the top mold member **12** to the opposite bottom edge **36** of the top mold member **12** along the bottom surface **18** of the top mold member **12**. Similarly, the lower mold recesses **32** of the bottom mold member **14** are longitudinally extending and extend from a top edge **35** of the bottom mold member **14** to the opposite bottom edge **37** of the bottom mold member **14** along the top surface **26** of the bottom mold member **14**. The upper mold recesses **30** mate with the lower mold recesses **32** to define cigar mold cavities **38**.

[0031] Each of the cigar mold cavities **38** includes an open first end **50** and a closed second end **52** extending between the top edges **34**, **35** and bottom edges **36**, **37** of the respectively top mold member **12** and the bottom mold member **14**. The open first end **50** includes a circular cross sectional shape (when take along a plane perpendicular to the longitudinal axis (that is, the axis extending between the top edges **34**, **35** and bottom edges **36**, **37** of the respectively top mold member **12** and the bottom mold member **14**) of the cigar mold cavity **38**) allowing manufacturers with access to the free end of a cigar for turning of the cigar during the manufacturing process.

[0032] The closed second end **52** of each of the cigar mold cavities **38** is substantially spherical and includes a diameter which is slightly larger than the diameter of the remainder of the cigar mold cavity **38** as it extends between the first end **50** and the second end **52**. By providing a diameter slightly larger than that of the remainder of the cigar mold cavity **38** extra room is provided at the second end **52** of the cigar mold cavity to allow for the accumulation of additional tobacco which commonly occurs during the manufacturing process. The second end **52** includes a substantially spherical configuration, and the top mold member **12** and the bottom mold member **14** are accordingly made with contours shaped and dimensioned to provide for the resulting shape of the cigar mold cavities **38**.

[0033] By providing a cigar mold **10** with multiple cigar mold cavities **38** a number of cigars may be molded in a single cigar mold **10**. In accordance with a preferred embodiment, the disclosed cigar mold **10** includes ten respective upper mold recesses **30** and lower mold recesses **32** defining ten cigar mold cavities **38** used during the simultaneous manufacture of ten cigars.

[0034] Referring to the cross-sectional view in FIG. **6** and **7**, each of the upper mold recesses **30** seats within a respective one of the lower mold recesses **32** to create cigar mold cavities **38** in which a cigar is formed. For the purposes of explanation, only one cigar mold cavity **38** will be described herein although all of the cigar mold cavities **38** are identical.

[0035] The upper mold recess **30** and lower mold recess **32** are shaped and dimensioned such that when the upper mold recess **30** is seated within the lower mold recess **32**, a complete circular form or a complete circle is defined by the upper mold recess **30** and the lower mold recess **32**; that is a complete circular form or a complete circle is defined when viewed along a plane perpendicular to the longitudinal axis (that is, the axis extending between the top edges **34**, **35** and bottom edges **36**, **37** of the respectively top mold member **12** and the bottom mold member **14**) of the cigar mold cavity **38**. This is achieved by constructing the upper mold recess **30** and the lower mold recess **32** such that the cigar mold recess **38** has no flat surfaces and is completely round, thus producing a totally round cigar during the press cycle, which is typically 45 minutes of press time. As the drawings show, there is no undesirable spacing as the cigar mold cavity **38** transitions from the exposed surface of the upper mold recess **30** to the exposed surface of the lower mold recess **32** at positions A and B as shown in FIG. **6**. This transition results in a contiguous surface formed along the cigar mold cavity **38**.

[0036] This is achieved by providing an upper mold recess **30**, when viewed along the cross-section shown in FIGS. **6** and **7** (that is, a cross section perpendicular to the longitudinal axis extending between the top edges **34** and bottom edge **36** of the top mold member **12**), which is a perfectly arcuate shape having a predefined radius of curvature. The lower mold recess **32**, when viewed along a cross section perpendicular to the longitudinal axis extending between the top edges **35** and bottom edge **37** of the bottom mold member **14**, includes a lower arcuate portion **40** which is also a continuous arcuate surface having a radius of curvature identical with that of the upper mold recess **30**. However, along both the first and second upper edges **42**, **44** of the lower mold recess **32**, respective first and second routed sections **46**, **48** are formed to accommodate the first and second outer walls **58**, **60** of the upper mold recesses **30** such that the arcuate surfaces of the respective upper mold recess **30** and lower mold recess **32**

may seat directly in alignment when the upper mold recess **30** is positioned within the lower mold recess **32**. This direct alignment results in a completely circular mold cavity **38** being formed with no flat surfaces in the cavity about the circumference thereof.

[0037] In accordance with a preferred embodiment, the upper arcuate portion **39** of the upper mold recess **30** defines an arc of slightly less than 180 degrees, more preferably, approximately 156.28 degrees, approximately 159.26 degrees, and approximately 161.16 degrees as the diameter respectively increases from 0.562 inches, 0.734 inches and 0.890 inches. As such, and in order that the upper arcuate portion **39** and lower arcuate portion **40** define a complete circle, the lower arcuate portion **40** defines an arc of slightly greater than 180 degrees, more particularly, approximately 203.72 degrees, approximately 200.74 degrees and approximately 198.84 as the diameter respectively increases from 0.562 inches, 0.734 inches and 0.890 inches. By designing the cigar mold cavity **38** in this manner, the tobacco is less likely to "pinch" at the transition point between the upper mold recess **30** and the lower mold recess **32** as it is turned during the manufacturing process. With this in mind, it is contemplated the lower mold recess **32** will define an arc of approximately 198 degrees to approximately 204 degrees with the upper mold recess **30** defining an arc of approximately 156 degrees to approximately 162 degrees, which when combined with the arc of the lower mold recess **32** defines a complete circle of 360 degrees. In practice, the diameter of the cigar mold cavity **38** may be widely varied and the length of the arcs (in degrees) of the upper mold recess **30** and the lower mold recess **32** are defined by the following equations, where "d" is the diameter of the cigar mold cavity **38**:

$$180 + 2\left(\arccos\frac{d - .012}{d}\right)$$

$$180 - 2\left(\arccos\frac{d - .012}{d}\right)$$

[0038] In view of this construction, channels **62** separate adjacent upper mold recesses **30**. Each channel **62** is defined by the respective first and second outer walls **58**, **60** of adjacent upper mold recesses **30** that are connected by a base member **64**. Similarly, upwardly extending posts **66** separate the lower mold recesses **32**. Each of the upwardly extending posts **66** is defined by the respective first and second upper edges **42**, **44** (in particular, the first and second routed sections **46**, **48** of the respective first and second upped edges **42**, **44**) that are connected by a top wall **68**.

[0039] The respective channels **62** and posts **66** are shaped and dimensioned for mating engagement such that points A, B at which the upper mold recess **32** meets the lower arcuate portion **40** of the lower mold recess **32**, are along the circle defining the cigar mold cavity **38**. In this way, the cigar mold cavity **38** defines a complete circular form or complete circle without disruption as one follows the inner surface **70** of the cigar mold cavity **38** along the circumference of the cigar mold cavity **38**. This results in rounder, better shaped cigars and prevents "catching" of the tobacco at the meeting point of the upper and lower mold recesses **30**, **32** as cigars are turned within the cigar mold cavity **38** during the manufacturing process.

[0040] While the preferred embodiments have been shown and described, it will be understood that there is no intent to limit the invention by such disclosure, but rather, is intended to cover all modifications and alternate constructions falling within the spirit and scope of the invention.

1. A cigar mold, comprising:
- a top mold member including a top surface and a bottom surface, at least one upper mold recess formed along the bottom surface of the top mold member; and
- a lower mold member including a bottom surface and a top surface, at least one lower mold recess formed along the top surface of the bottom mold member;
- wherein the upper mold recess mates with the lower mold recess to define a completely circular cigar mold cavity, the cigar mold cavity includes an open first end and a closed second end, the second end of the cigar mold cavity is substantially spherical and includes a diameter which is slightly larger than the diameter of the remainder of the cigar mold cavity as it extends between the first end and the second end.

2. The cigar mold according to claim **1**, wherein the cigar mold cavity includes no flat surfaces and is completely round.

3. The cigar mold according to claim **2**, wherein the upper mold recess defines an arcuate shape having a predefined radius of curvature.

4. The cigar mold according to claim **3**, wherein the lower mold recess includes a lower arcuate portion which defines a continuous arcuate surface having a radius of curvature identical with that of the upper mold recess.

5. The cigar mold according to claim **4**, wherein the lower mold recess includes first and second upper edges, and each of the first and second upper edges includes a routed section formed to accommodate an outer wall of the upper mold recess.

6. The cigar mold according to claim **2**, wherein the upper mold recess defines an arcuate shape having a predefined radius of curvature forming an arc of less than 180 degrees.

7. The cigar mold according to claim **6**, wherein the lower mold recess includes a lower arcuate portion which defines a continuous arcuate surface having a radius of curvature identical with that of the upper mold recess forming an arc of greater than 180 degrees.

8. The cigar mold according to claim **1**, further including alignment pegs shaped and dimensioned for selective seating within matingly shaped alignment recesses for maintaining the top mold member and the bottom mold member in an aligned configuration.

9. The cigar mold according to claim **1**, wherein the bottom surface of the top mold member includes a plurality of alignment pegs shaped and dimensioned for selective seating within matingly shaped alignment recesses formed in the top surface of the bottom mold member.

10. The cigar mold according to claim **1**, wherein the cigar mold includes ten cigar mold cavities.

11. The cigar mold according to claim **1**, wherein it is manufactured from a polymeric material.

* * * * *