US011274697B2

(12) **United States Patent**
Srour

(10) **Patent No.: US 11,274,697 B2**
(45) **Date of Patent: Mar. 15, 2022**

(54) **FLEXIBLE FLANGE COLLAPSIBLE DISCS**

(71) Applicant: **Ikey Srour**, Brooklyn, NY (US)

(72) Inventor: **Ikey Srour**, Brooklyn, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 550 days.

(21) Appl. No.: **16/354,889**

(22) Filed: **Mar. 15, 2019**

(65) **Prior Publication Data**

US 2020/0291986 A1 Sep. 17, 2020

(51) **Int. Cl.**
F16C 11/12 (2006.01)
F16F 1/42 (2006.01)

(52) **U.S. Cl.**
CPC ***F16C 11/12*** (2013.01); ***F16F 1/428*** (2013.01); *F16F 2236/027* (2013.01)

(58) **Field of Classification Search**
CPC F16C 11/12; F16F 1/185; F16F 3/023; H05K 7/2049; H05K 5/0204; H01L 23/40; H01L 23/473; H01L 23/3675; H01L 23/4012; H01L 2023/4068; H01L 2924/00; H01I 25/105; H04B 1/38; H04B 1/3888; H04B 1/3877; H04M 1/04; H04M 1/15; F16B 2/02; F16B 2/12; F16M 11/40; F16M 11/06; F16M 13/00; H01R 13/33; G06F 1/1626
USPC 403/410; 267/73, 141–143, 145, 267/151–153, 165
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,640,670 A * 8/1927 Schaeffer F16C 11/12 464/86
2,825,378 A 3/1958 Vaca
3,029,094 A * 4/1962 Parlasca et al. .. F16L 27/12751
3,773,203 A 11/1973 Grimaldi et al.
4,760,866 A 8/1988 Adler
D314,865 S 2/1991 Tuisku
5,053,687 A * 10/1991 Merlet B25J 17/0216 318/568.2
D327,808 S 7/1992 Kline
D330,632 S 11/1992 Hensley
(Continued)

FOREIGN PATENT DOCUMENTS

WO WO-2020009795 A1 * 1/2020 ..... F16M 11/121

OTHER PUBLICATIONS

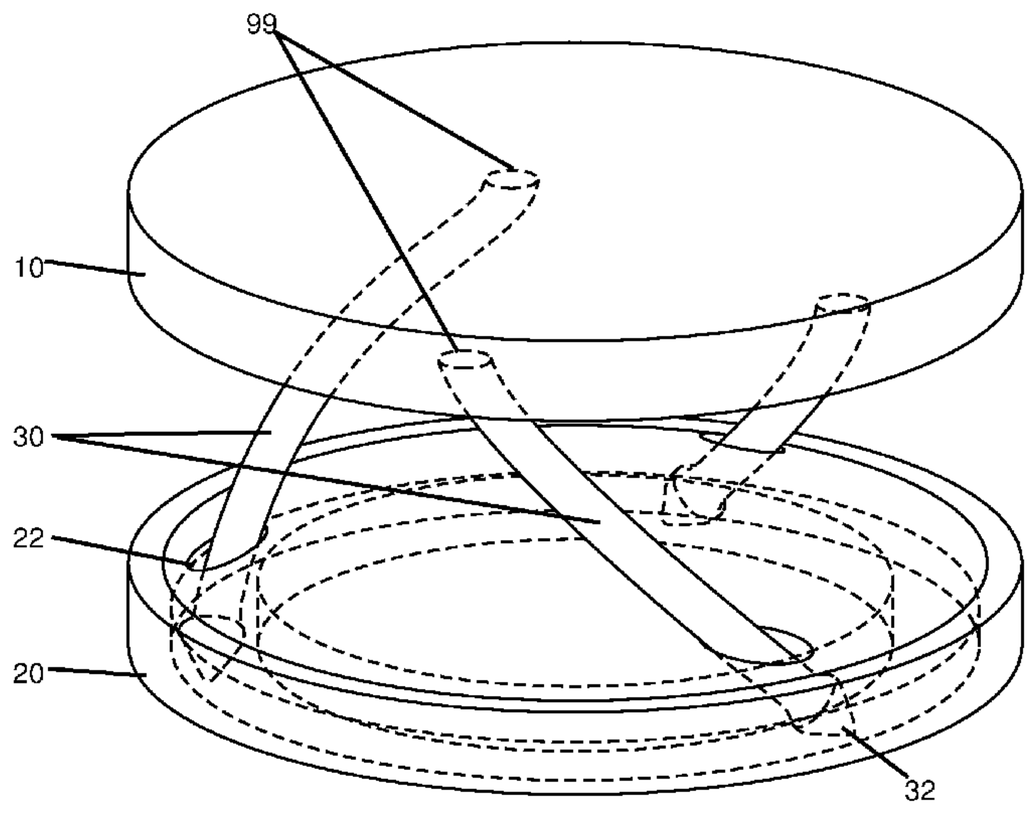
Fasttech.com. RFID Blocking Credit Card Holder Wallet Money Clip Case. Date listed Oct. 2017 [date retrieved Mar. 6, 2018]: https://www.fasttech.com/products/9343200. (Cited by Examiner).

Primary Examiner — Robert A. Siconolfi
Assistant Examiner — San M Aung
(74) *Attorney, Agent, or Firm* — Michael J. Feigin, Esq.; Feigin and Fridman LLC

(57) **ABSTRACT**

Collapsible discs move towards or away from each other in embodiments of the disclosed technology by changing the angle of flanges which connect the two discs together. The flanges connect to each respective disc by way of one a fixed connection to one disc and a slidable connection to the other. The flanges slide into portals in the bottom disc and then extend along and into a hollow space therein the bottom disc. The flanges have a tip or multiple tips which is/are wider than a rest of an elongated length thereof which frictionally holds the flanges, and therefore, the discs in places until the discs are rotated causing the flanges to be pulled out from or pushed into the portals. This, in turn, causes the discs to move closer together or become further apart in embodiments of the disclosed technology.

14 Claims, 6 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

D332,347	S	1/1993	Raadt et al.	
D352,896	S	11/1994	Jones	
D404,762	S	1/1999	Vogel	
5,944,080	A	8/1999	Podwika	
6,250,618	B1 *	6/2001	Greenhill	F16F 1/328 267/162
D446,647	S	8/2001	Protheroe	
D446,648	S	8/2001	Protheroe	
D447,868	S	9/2001	Protheroe	
D470,657	S	2/2003	Kawamura	
D471,008	S	3/2003	Dubone	
D475,696	S	6/2003	Hussaini et al.	
D481,537	S	11/2003	Vaughn	
D489,051	S	4/2004	Shiraki et al.	
6,736,285	B2	5/2004	Steward-Stand	
D492,944	S	7/2004	Drakoulis et al.	
D509,955	S	9/2005	Williams	
D512,914	S	12/2005	Moretti	
D516,577	S	3/2006	Matsuoka	
D521,499	S	5/2006	Takita et al.	
D525,612	S	7/2006	Densho	
D527,898	S	9/2006	Tavone	
D531,618	S	11/2006	Kennemer et al.	
D536,614	S	2/2007	Peterson et al.	
D547,062	S	7/2007	Chang	
D560,116	S	1/2008	Brassard	
D572,465	S	7/2008	Beck	
D601,366	S	10/2009	Barabas et al.	
D605,188	S	12/2009	Martinez	
D610,798	S	3/2010	Silvera	
D618,692	S	6/2010	Deutsch et al.	
D619,559	S	7/2010	Voorhees	
D622,958	S	9/2010	Moore	
D626,935	S	11/2010	Ohtani et al.	
D627,330	S	11/2010	Otsuka	
D633,477	S	3/2011	Lorenzo	
D633,644	S	3/2011	Sprengers	
D637,583	S	5/2011	Beal et al.	
7,987,148	B2	7/2011	Hangartner et al.	
D647,881	S	11/2011	Warner	
D647,892	S	11/2011	Ragde, Jr.	
D650,371	S	12/2011	Wibby et al.	
D652,825	S	1/2012	Bau	
D652,836	S	1/2012	Voorhees	
D654,054	S	2/2012	Kohte et al.	
D655,692	S	3/2012	Silverman et al.	
D656,135	S	3/2012	Swartz et al.	
D656,926	S	4/2012	Jones, III et al.	
D656,927	S	4/2012	Jones, III et al.	
D656,928	S	4/2012	Jones, III et al.	
D658,164	S	4/2012	Chan	
D660,306	S	5/2012	Voorhees	
8,186,642	B2	5/2012	Weiss-Vons	
8,317,046	B2	11/2012	Vanderberg et al.	
D675,197	S	1/2013	Losiewicz	
D681,020	S	4/2013	Magness et al.	
D681,612	S	5/2013	Palacios	
D681,613	S	5/2013	Magness et al.	
D689,479	S	9/2013	Soffer	
D690,931	S	10/2013	Minn	
D691,988	S	10/2013	Warner	
8,560,031	B2	10/2013	Barnett et al.	
D693,818	S	11/2013	Webber	
D694,222	S	11/2013	Thompson et al.	
D694,463	S	11/2013	Sieczkowski	
8,616,327	B1	12/2013	Palacios	
D699,757	S	2/2014	Wilkey	
D703,647	S	4/2014	Kim	
D703,949	S	5/2014	Chappell et al.	
D705,199	S	5/2014	Huang et al.	
D705,229	S	5/2014	Wengreen et al.	
D705,764	S	5/2014	Thoni	
D705,767	S	5/2014	Yoon	
8,737,066	B1	5/2014	Block	
D707,965	S	7/2014	Requa	
D710,340	S	8/2014	Wengreen et al.	
D714,126	S	9/2014	Pyon et al.	
D715,784	S	10/2014	Lin et al.	
D716,043	S	10/2014	Wilk	
D717,780	S	11/2014	Tussy	
D718,750	S	12/2014	Young et al.	
D719,143	S	12/2014	Vidovic	
D719,350	S	12/2014	Daoura	
D721,373	S	1/2015	Logereau	
D722,235	S	2/2015	Meng	
D723,799	S	3/2015	Glass et al.	
D724,841	S	3/2015	Schneider et al.	
D726,234	S	4/2015	Needham	
D728,230	S	5/2015	Oas	
D728,535	S	5/2015	Degenkolb	
D730,047	S	5/2015	Yi	
D734,305	S	7/2015	Wengreen	
D735,174	S	7/2015	Wengreen	
D738,619	S	9/2015	Gluck	
D738,872	S	9/2015	Erickson-Davis et al.	
D739,389	S	9/2015	Prohaska	
D743,409	S	11/2015	Chen	
D745,014	S	12/2015	Vales	
D745,274	S	12/2015	Minn et al.	
D747,093	S	1/2016	Rogers	
D748,615	S	2/2016	Lee et al.	
D749,069	S	2/2016	Senoff	
D749,549	S	2/2016	Wengreen	
D751,289	S	3/2016	Gluck	
D756,222	S	5/2016	Lopez et al.	
D756,366	S	5/2016	Floersch	
D759,966	S	6/2016	Pignotti	
D761,236	S	7/2016	Wengreen	
D763,835	S	8/2016	Wengreen	
D765,063	S	8/2016	Wengreen	
D765,064	S	8/2016	Wengreen	
D766,228	S	9/2016	Haymond	
D768,382	S	10/2016	Wu	
D768,383	S	10/2016	Wu	
D769,859	S	10/2016	Herbst et al.	
D772,212	S	11/2016	Daniel et al.	
D772,739	S	11/2016	Browning et al.	
D772,882	S	11/2016	Paschke et al.	
9,486,910	B2	11/2016	Stevens et al.	
D773,325	S	12/2016	Browning et al.	
D774,887	S	12/2016	Torrison et al.	
D775,824	S	1/2017	King	
D776,426	S	1/2017	Smith	
D776,529	S	1/2017	Torrison et al.	
D777,025	S	1/2017	Turksu et al.	
D777,162	S	1/2017	Erickson-Davis et al.	
D778,884	S	2/2017	Taptic et al.	
D779,466	S	2/2017	Wengreen	
D780,449	S	3/2017	King	
D781,832	S	3/2017	Saitko et al.	
D783,593	S	4/2017	Chen	
D784,811	S	4/2017	Scevola	
D784,977	S	4/2017	Ormsbee et al.	
D784,978	S	4/2017	Hobbs et al.	
D789,076	S	6/2017	Pierre	
D792,220	S	7/2017	Simons et al.	
D794,007	S	8/2017	Zhang	
D794,456	S	8/2017	Rockwell	
D794,607	S	8/2017	Srour	
D798,591	S	10/2017	King	
D801,176	S	10/2017	Lynd et al.	
9,787,348	B2	10/2017	Srour	
D804,306	S	12/2017	Simons et al.	
D806,386	S	1/2018	King	
D807,746	S	1/2018	Fleming	
D808,158	S	1/2018	King	
D817,316	S	5/2018	Srour	
9,970,589	B2	5/2018	Hobbs et al.	
2003/0086748	A1 *	5/2003	Culpepper	F16M 7/00
2004/0145870	A1	7/2004	Minami et al.	
2006/0283859	A1	12/2006	Lu	
2011/0188926	A1 *	8/2011	Stratton	B23P 11/00 403/53
2011/0192857	A1	8/2011	Rothbaum et al.	

(56) **References Cited**

U.S. PATENT DOCUMENTS

2012/0042476	A1	2/2012	Karmatz	
2012/0104185	A1	5/2012	Carroll	
2012/0168483	A1	7/2012	Jambunathan et al.	
2013/0001382	A1	1/2013	Jang	
2013/0148271	A1	6/2013	Huang	
2013/0277991	A1	10/2013	Wu	
2014/0133897	A1*	5/2014	Ceallaigh	G12B 5/00
2014/0317329	A1	10/2014	Barnett et al.	
2015/0077927	A1	3/2015	Barnett et al.	
2015/0201743	A1	7/2015	Erickson-Davis et al.	
2015/0288409	A1	10/2015	Forsythe	
2015/0335138	A1	11/2015	Juarbe	
2015/0365125	A1	12/2015	Murphy et al.	
2016/0058162	A1	3/2016	Wang et al.	
2017/0195000	A1*	10/2017	Srour	F16B 2/06
2017/0293207	A1	10/2017	Jeon	
2018/0051846	A1	2/2018	Hobbs et al.	
2018/0066791	A1	3/2018	Hobbs et al.	
2018/0146078	A1*	5/2018	Shin	F16F 1/122
2018/0283600	A1*	10/2018	Hobbs	F16M 13/04

* cited by examiner

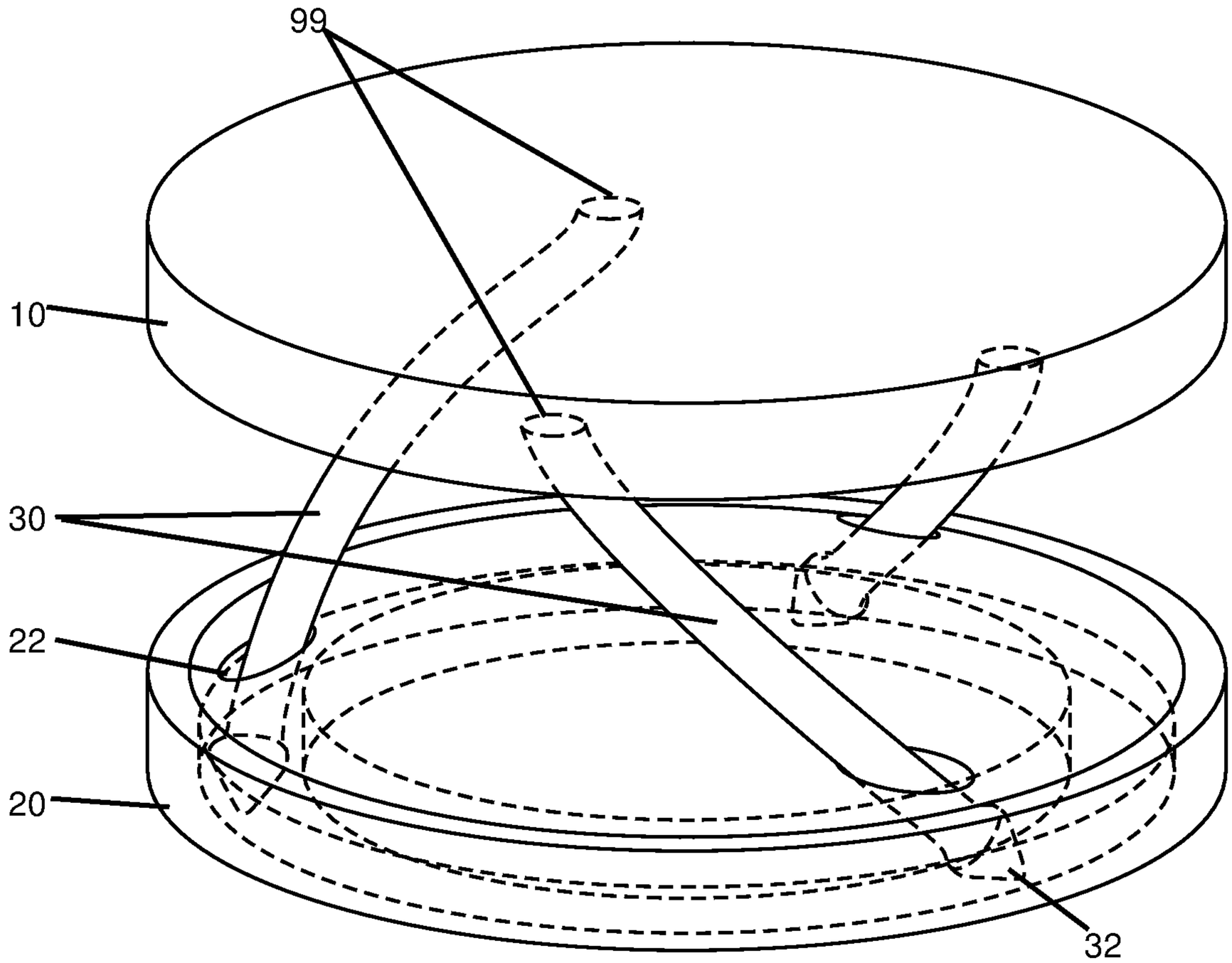


Figure 1

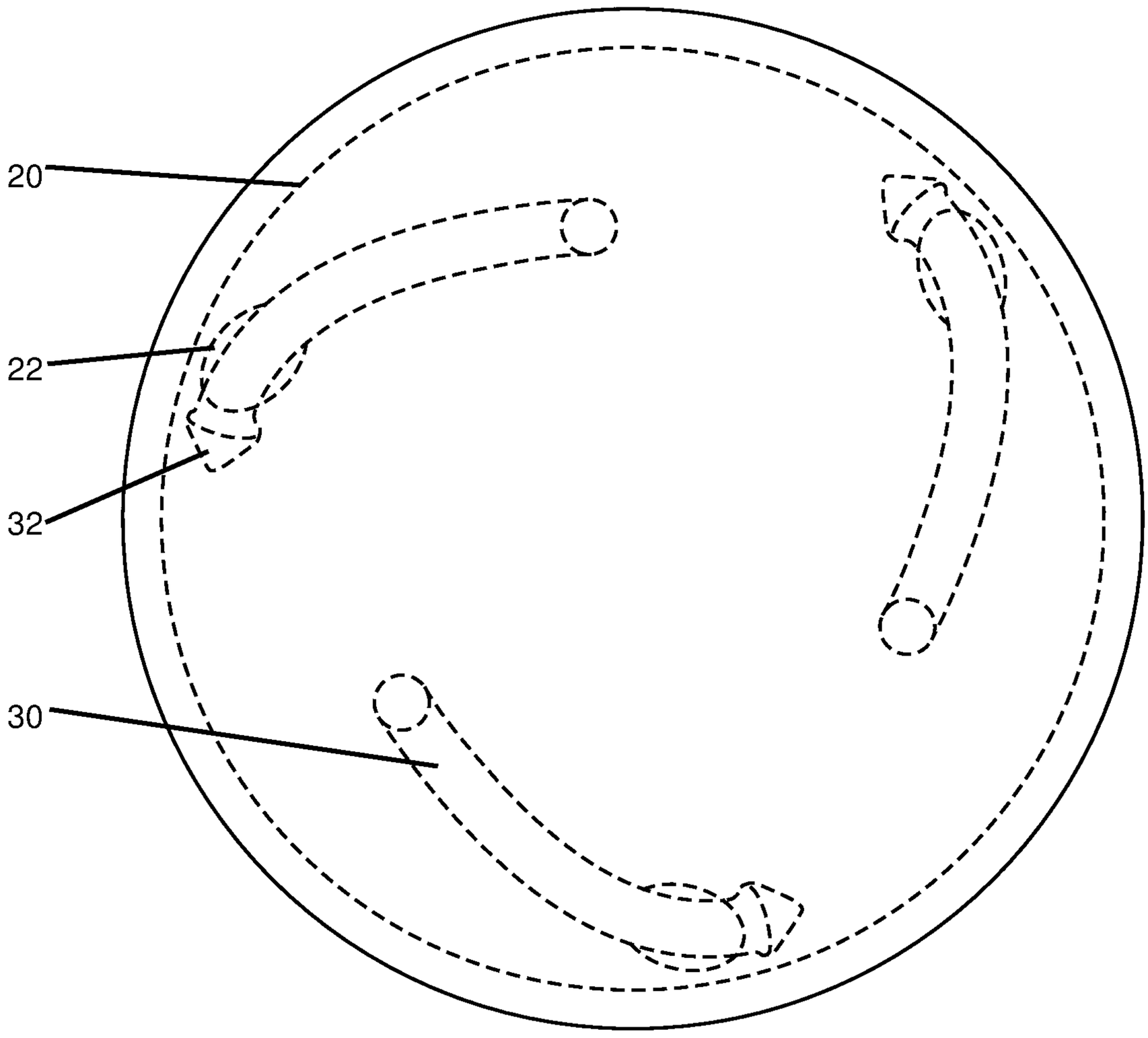


Figure 2

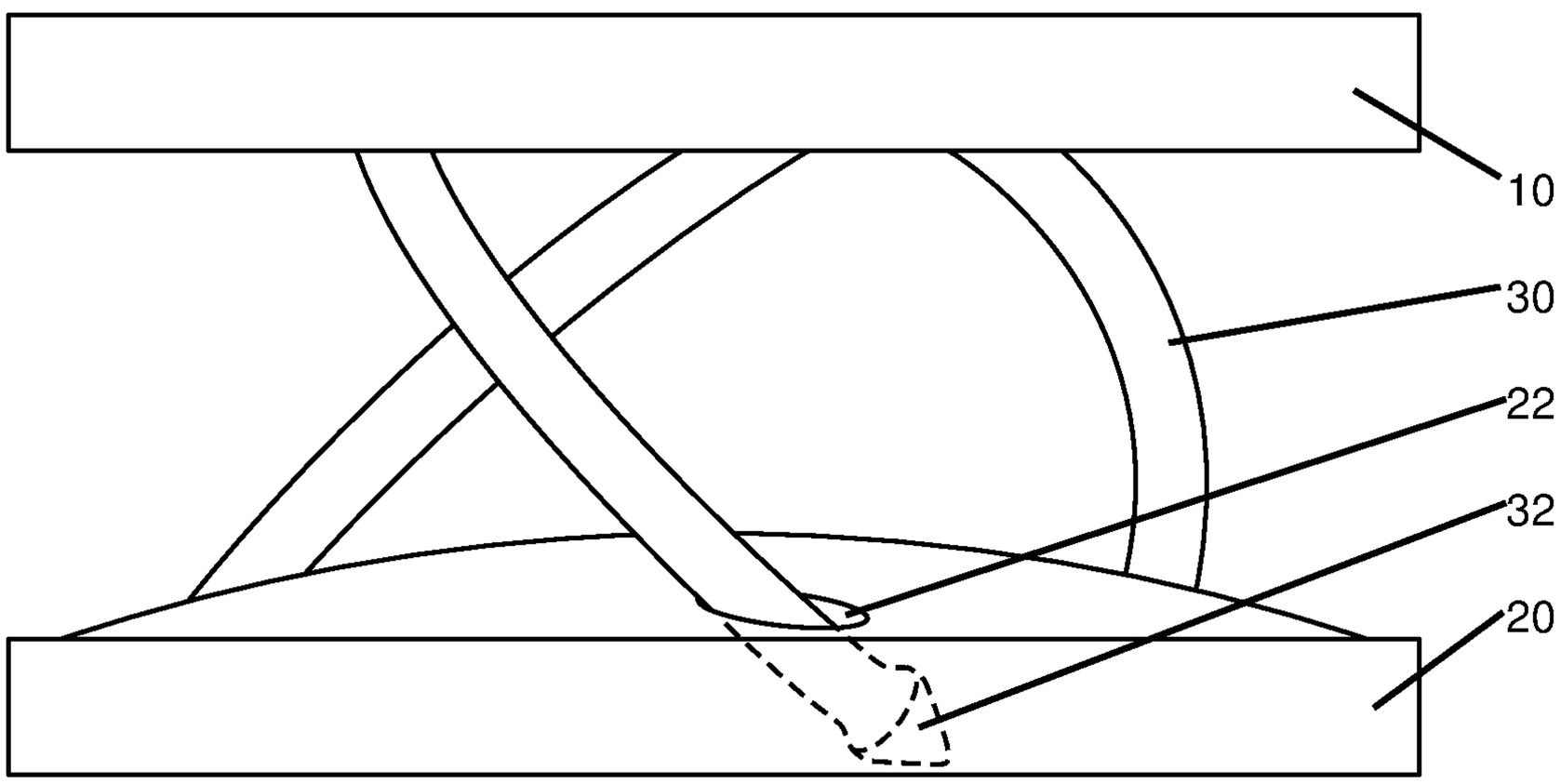


Figure 3

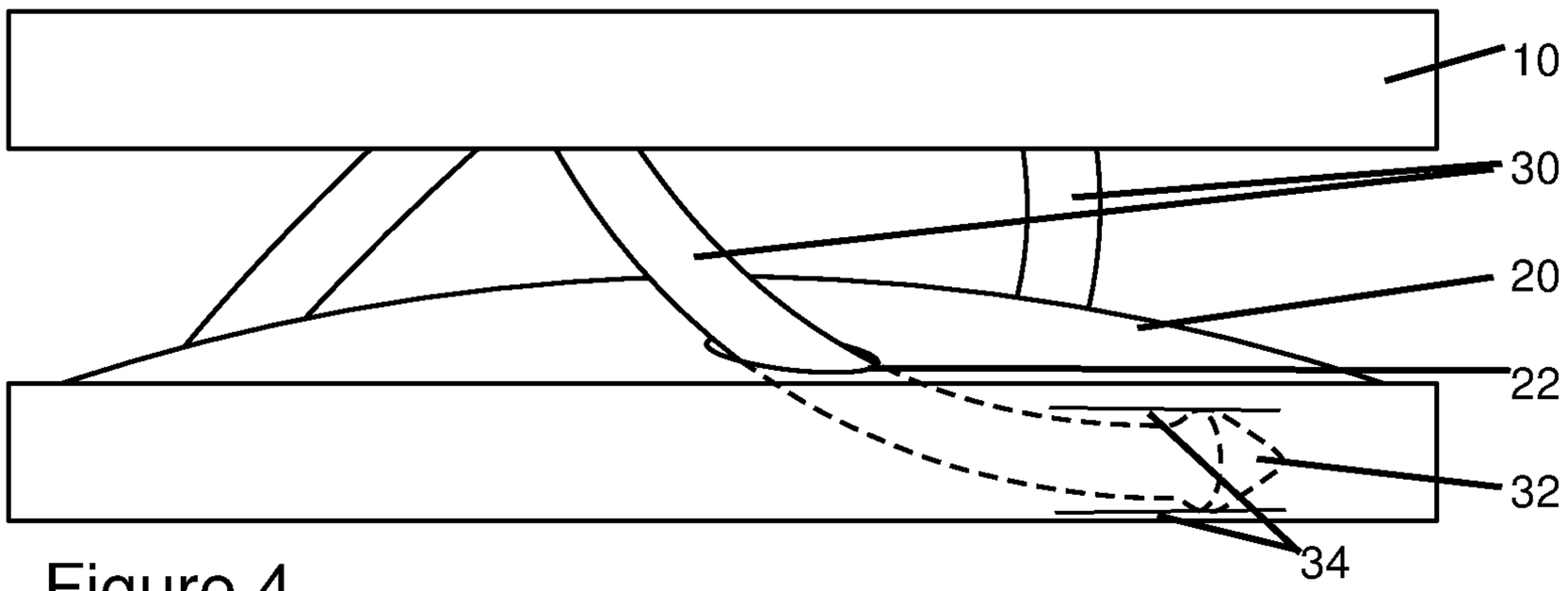


Figure 4

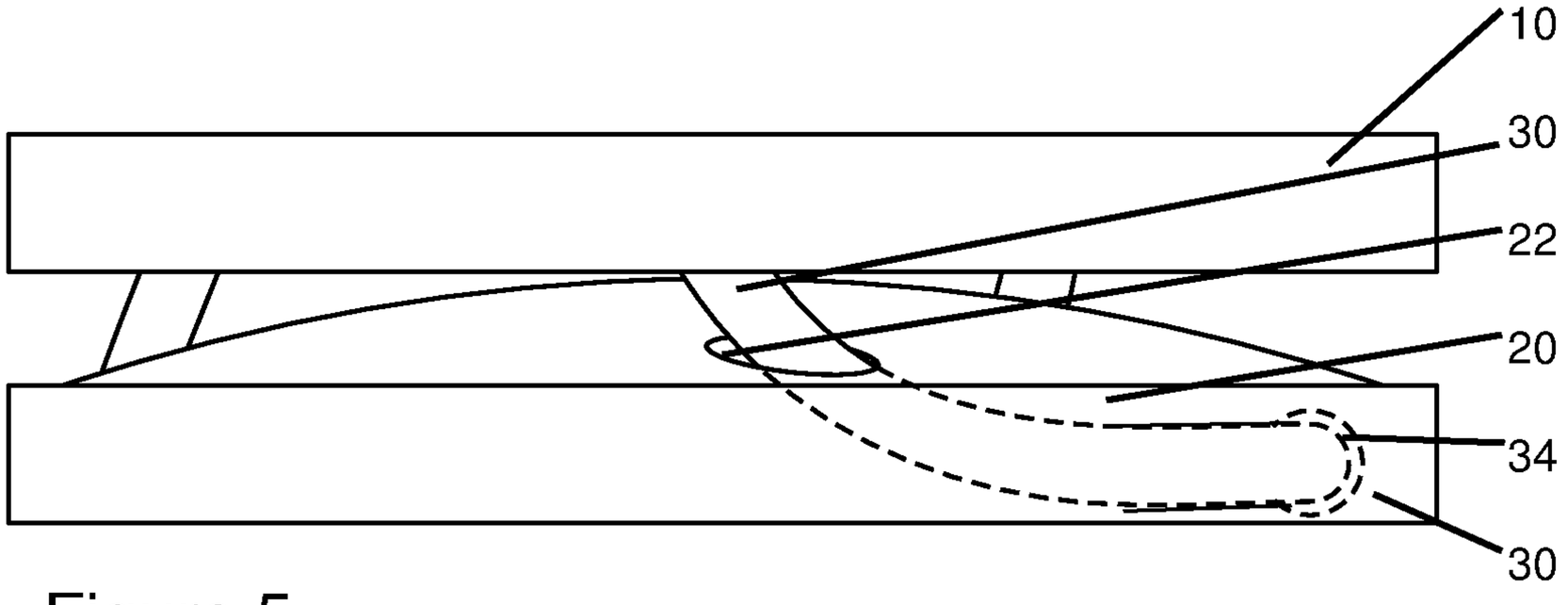


Figure 5

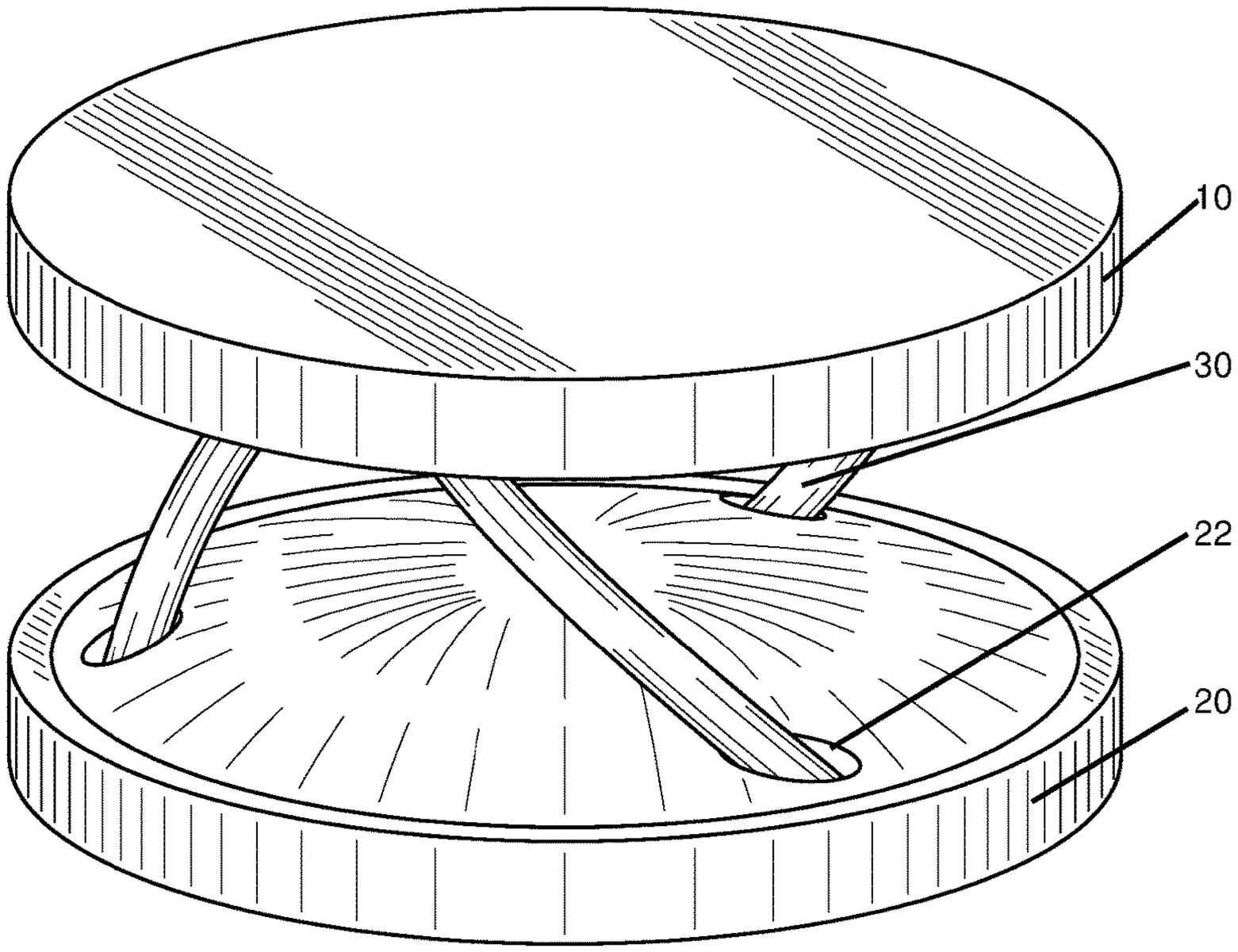


Figure 6

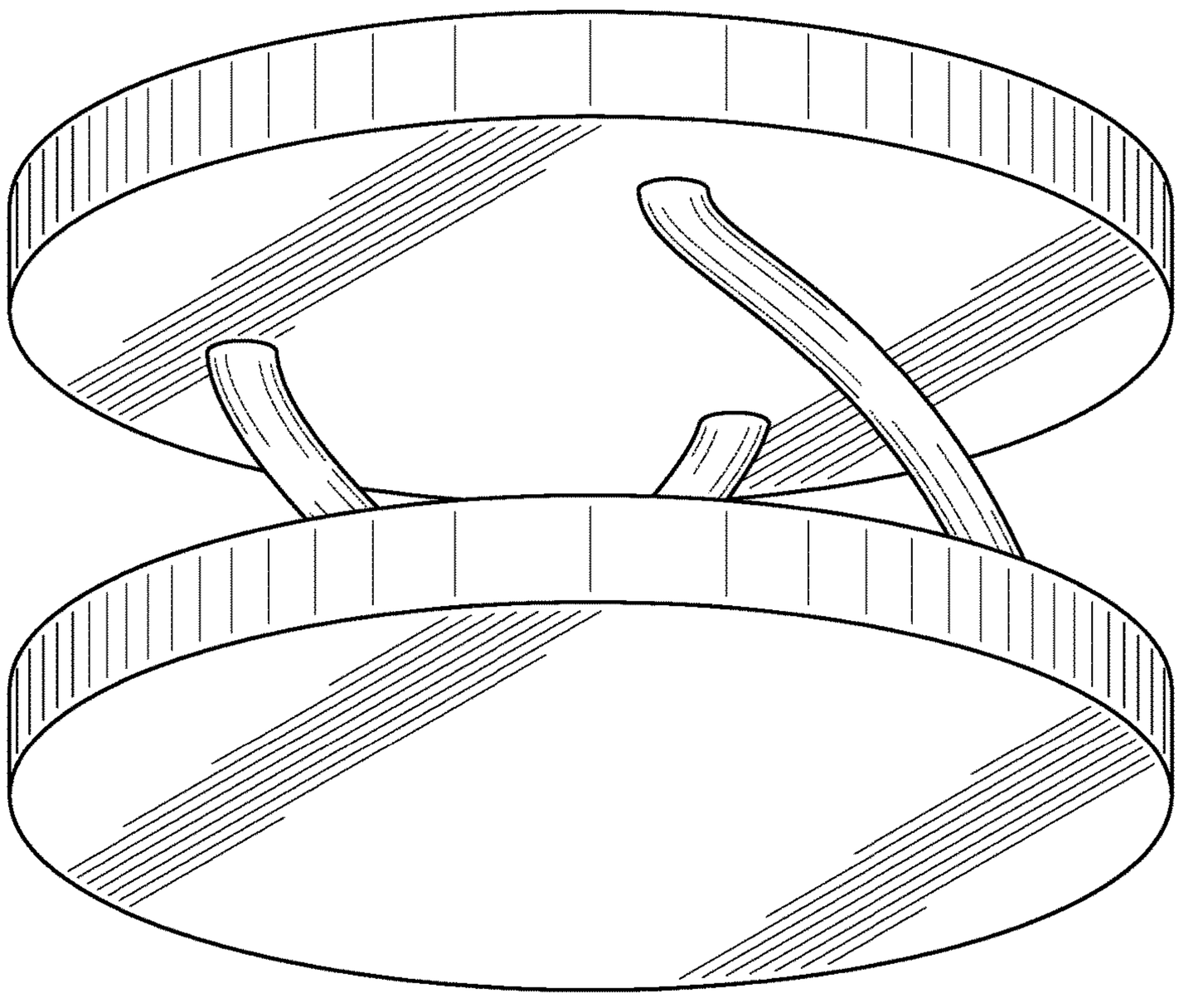


Figure 7

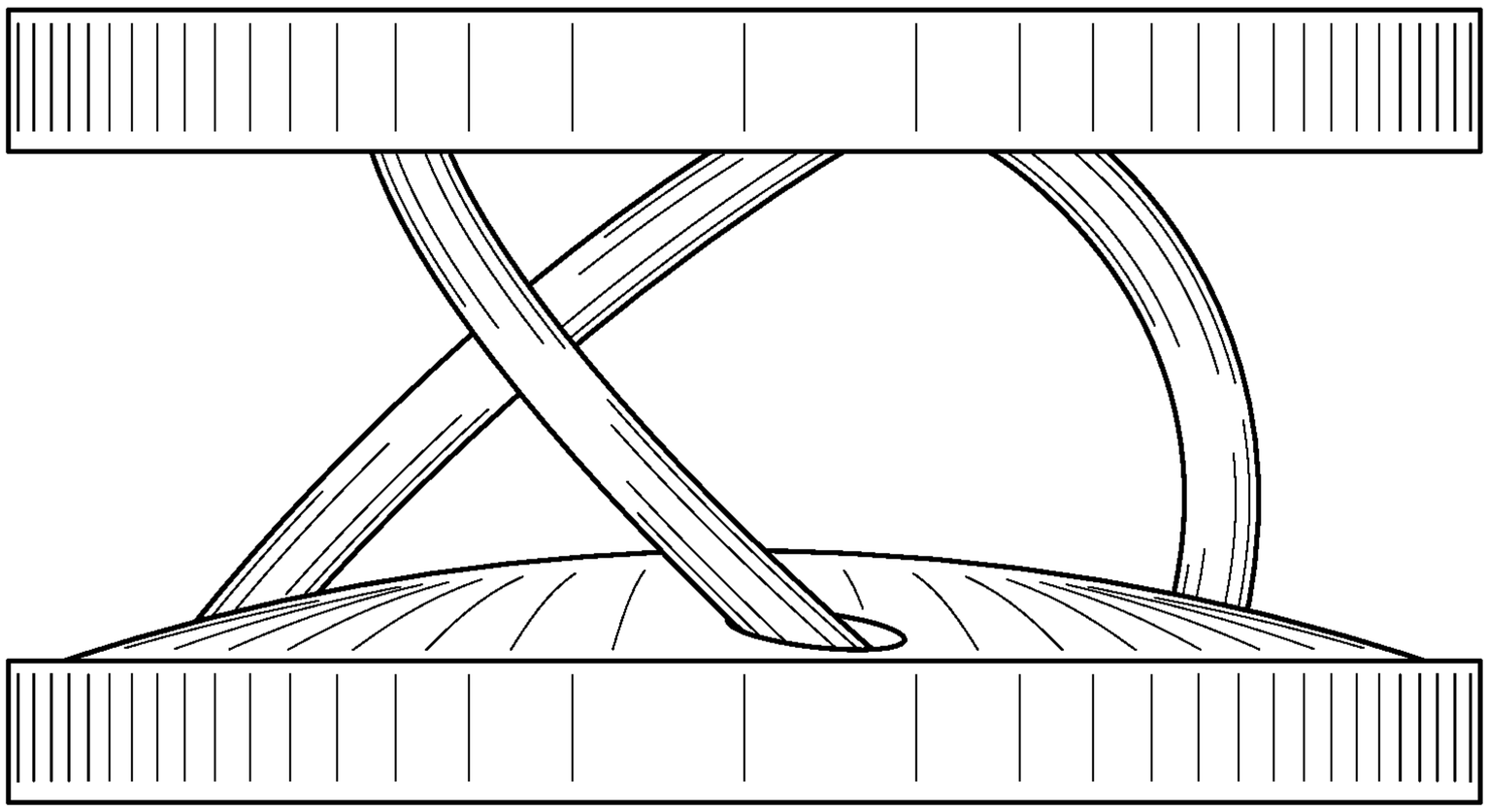


Figure 8

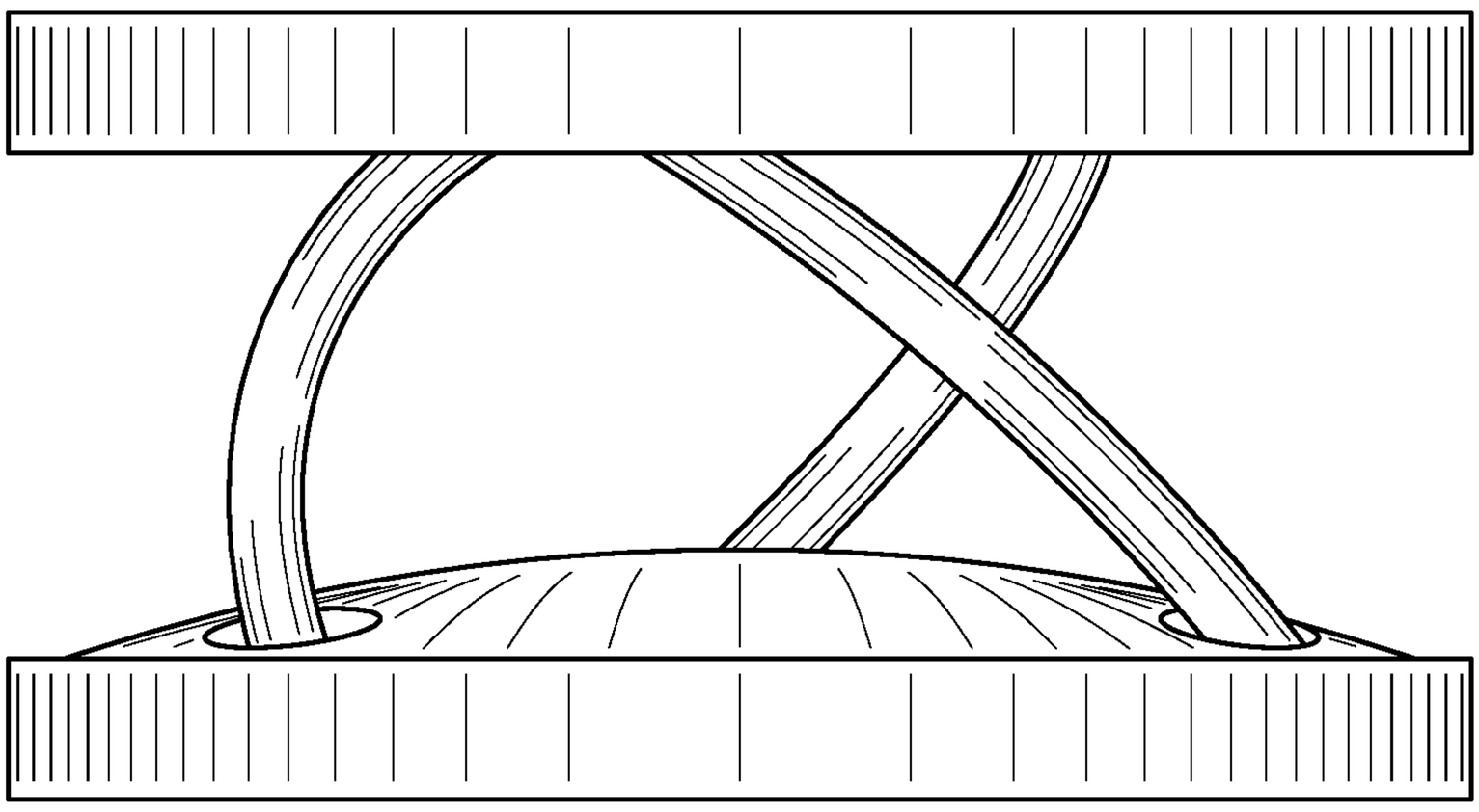


Figure 9

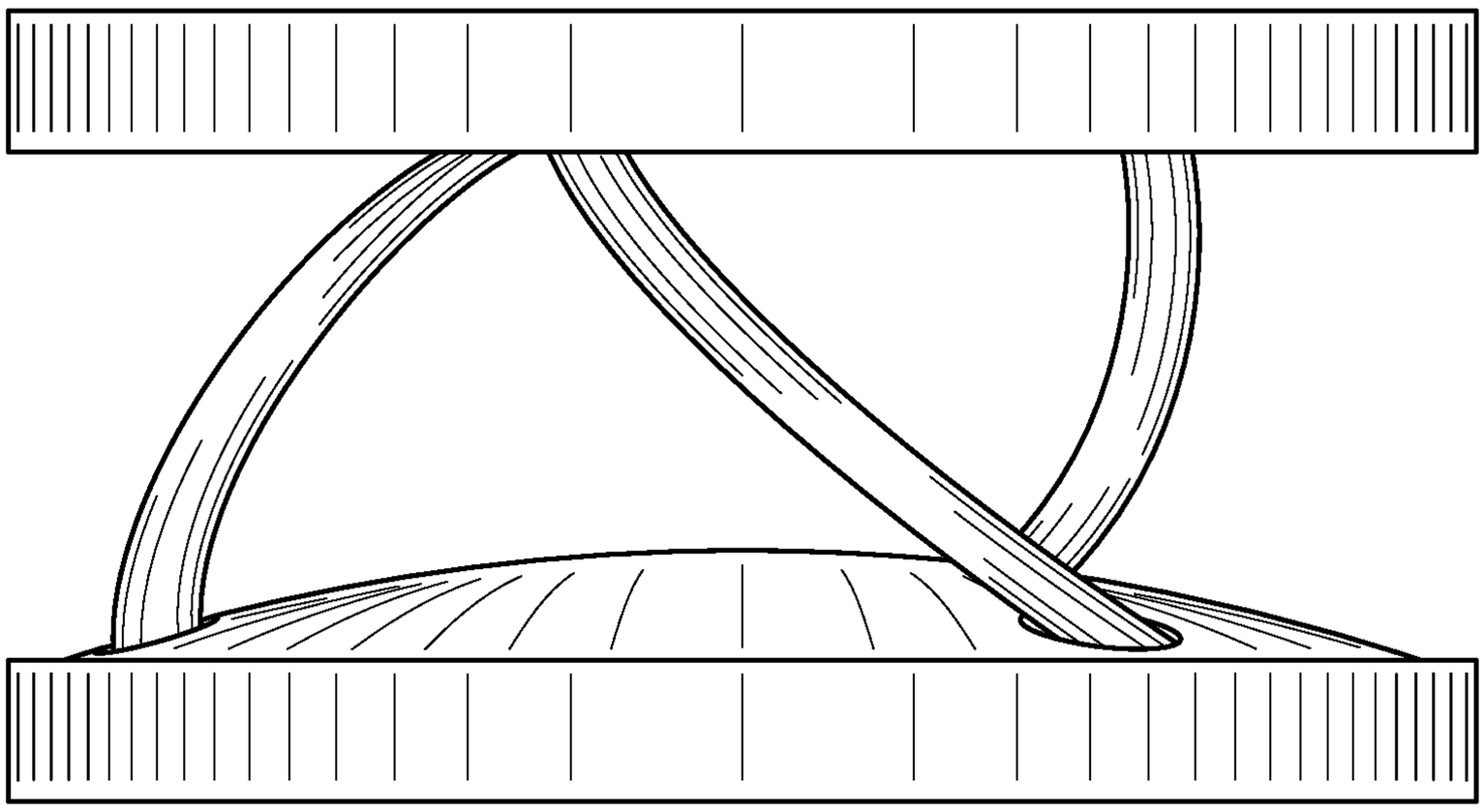


Figure 10

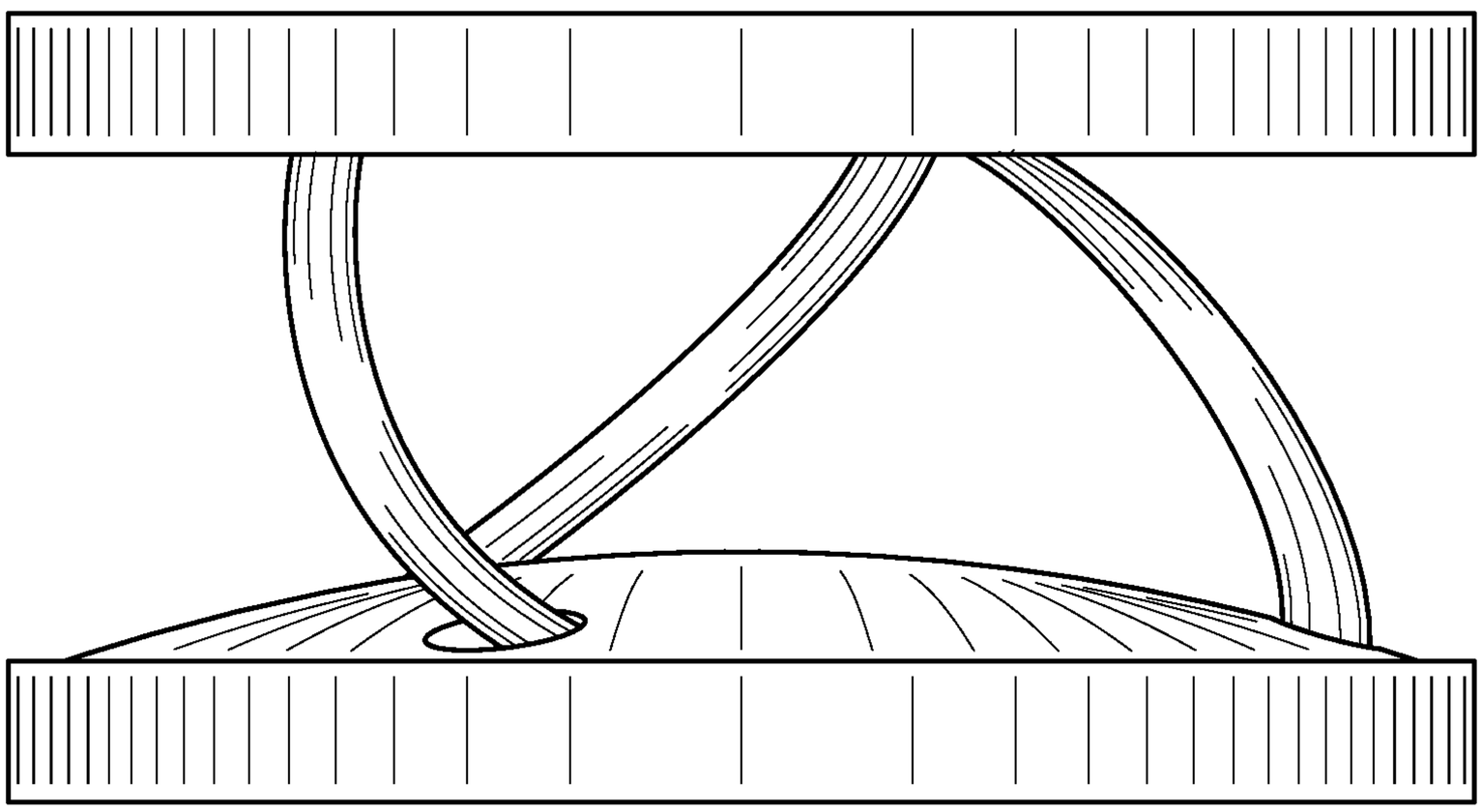


Figure 11

FLEXIBLE FLANGE COLLAPSIBLE DISCS

FIELD OF THE DISCLOSED TECHNOLOGY

The disclosed technology relates to accessories which collapse, and more specifically, those that do so with sliding arms.

SUMMARY OF THE DISCLOSED TECHNOLOGY

A set of collapsible discs include a top and bottom disc. A plurality of individual flexible flanges extends from the top disc through respective portals in the bottom disc. Each of the plurality of individual flexible flanges extends further or less far into the respective portals in the bottom disc when the top and bottom disc are rotated relative to one another.

A "disc" is defined as "a device with a substantially circular most elongated plane thereof." The directions "top" and "bottom" are relative and interchangeable for purposes of this disclosure. In some embodiments, there is a horizontal line or plane of symmetry between the top and bottom halves of the device.

A "living hinge" is defined as "a flexure bearing which is flexible (changeable angle) and connects two rigid elements together in a way in which the rigid pieces can repeatedly (1000+ times) bend relative to one another and remain connected." Living hinges of embodiments of the disclosed technology are formed from thinned plastic material between disc and a part of a rotating hinge. In some embodiments, a disc, living hinge, and rotating hinge are formed together in a single mold. In some embodiments, two of such single molds are formed and a pin joins the rotating hinges together to form the collapsible device.

A "sliding hinge" or to be "slidably hinged" is to rotates a flange by having the flange move parallel along a length of an inset, cutaway, cavity, or portal in a disc changing an angle of the flange relative to the disc or discs.

The "discs" of embodiments of the disclosed technology have top and bottom sides which are elliptical and/or circular and interior space between the top and bottom sides which is hollow, filled, or partially filled and partially hollow. The hollow sections can have multiple tracks with elliptical or circular openings therein where each flexible flange passes into. The flanges can be fixedly or hingedly attached (such as by way of a flexural hinge) to the top disc and slidably attached to the bottom disc such that the flanges can flex (are flexible) and are resilient (able to change shape but return or substantially return or be shaped into a pre-changed shape without causing permanent or structural damage thereto).

The flexible flanges have ends, such as bulbous ends, which flare out or are wider at parts then a body thereof. The body, a longest part thereof can have a continuous cross-sectional shape and area (e.g. circular) while the tip, end, or bulbous end are a part which has a wider cross-sectional area which remains or tapers into an extreme end of each respective flange. The wider portion has a larger or equal cross-section than a track within the bottom disc and can be somewhat compressible (defined as "forces pressing thereagainst are able to shrink the cross-sectional area and the device is resilient"). In this manner, in a resting condition, the flanges remain in place relative to the bottom disc and the discs remain in place relative to each other. Twisting or rotating motion of the discs is required, in embodiments of the disclosed technology, to move the discs closer/further together while causing the flanges to be more inserted/more removed from the bottom disc.

Each end is circumferentially abutted against a respective hollow track within the bottom disc in some embodiments of the disclosed technology. Each respective portal extends into a track which bends in a curvilinear manner until becoming parallel with a top and/or bottom side of the bottom disc in embodiments of the disclosed technology. The plurality of individual (separate/spaced apart from each other) flexible flanges can be equi-distant from each other, such as at 120 degree increments arranged in a circular or equilateral triangular configuration.

The portal of the bottom disc through which a flange enters can be elliptical and non-circular. The two discs can rotate with respect to each other which causes the flanges to rotate and further enter or leave respective portals and hollow tracks within the bottom disc in embodiments of the disclosed technology. When rotating in a first direction, the discs get closer together and the flanges push into the bottom disc more, while when rotating in a second direction which is opposite the first, the flanges pull out of the bottom disc more than they were previously and the discs become further apart in embodiments of the disclosed technology.

Any device or step to a method described in this disclosure can comprise or consist of that which it is a part of, or the parts which make up the device or step. The term "and/or" is inclusive of the items which it joins linguistically and each item by itself. "Substantially" is defined as "at least 95% of the term being described" and any device or aspect of a device or method described herein can be read as "comprising" or "consisting" thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows a translucent top and side perspective view of rotating and collapsible discs of embodiments of the disclosed technology.

FIG. **2** shows a bottom plan view of a bottom disc of the rotating and collapsible discs of FIG. **1**.

FIG. **3** shows a side elevation view of the rotating and collapsible discs of FIG. **1** in an expanded condition.

FIG. **4** shows a side elevation view of the rotating and collapsible discs of FIG. **1** in a collapsing condition.

FIG. **5** shows a side elevation view of the rotating and collapsible discs of FIG. **1** in a collapsed condition.

FIG. **6** shows a solid top and side perspective view of rotating and collapsible discs of FIG. **1**.

FIG. **7** shows a bottom and side perspective view of rotating and collapsible discs of FIG. **6**.

FIG. **8** shows a first elevation view of the rotating and collapsible discs of FIG. **6**.

FIG. **9** shows a second elevation view of the rotating and collapsible discs of FIG. **6**.

FIG. **10** shows a third elevation view of the rotating and collapsible discs of FIG. **6**.

FIG. **11** shows a fourth elevation view of the rotating and collapsible discs of FIG. **6**.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE DISCLOSED TECHNOLOGY

Collapsible discs move towards or away from each other in embodiments of the disclosed technology by changing the angle of flanges which connect the two discs together. The flanges connect to each respective disc by way of one a fixed connection to one disc and a slidable connection to the other. The flanges slide into portals in the bottom disc and then

extend along and into a hollow space therein the bottom disc. The flanges have a tip or multiple tips which is/are wider than a rest of an elongated length thereof which frictionally holds the flanges, and therefore, the discs in places until the discs are rotated causing the flanges to be pulled out from or pushed into the portals. This, in turn, causes the discs to move closer together or become further apart in embodiments of the disclosed technology.

Embodiments of the disclosed technology will become more clear in view of the following description of the figures.

FIG. **1** shows a translucent top and side perspective view of rotating and collapsible discs of embodiments of the disclosed technology. A top disc **10** and bottom disc **20** are spaced apart from each other in embodiments. At rest, the discs **10** and **20** are held in place relative to one another by way of a plurality of individual flexible, resilient, flanges **30**. The flanges can each be substantially identical or be of different lengths and extend from and into a position which is equi-distant from a center point of a surface of the respective discs. The flanges **30** can also be equi-spaced from each other around a circle or at points of an equilateral triangle. In other embodiments, the flanges are unequally spaced from each other or from a center of a disc. The term "center" or "center-point", unless otherwise qualified, is defined as "at a center of an elongated top or bottom side of a disc." In this disclosure the terms "top" and "bottom" are relative to the direction of the paper in FIG. **3** where the top side of the sheet is the "top" side of the device, and each respective element within the device has a top and bottom side relative thereto. Thus, the top disc **10** is defined as being at the top side of the device and it's respective top side of the disc is the one which faces away from the respective bottom side of the top disc and away from the bottom disc **20** and so forth.

The flanges **30** can be fixedly and permanently (designed to remain connected and be irremovable without hindering functionality/effectiveness of the device as a whole) attached to the top disc **10** by way of an attachment **99**. The attachment **99** can be by way of being procured in a single mold, printing, or construction or by way of a permanent fastening mechanism. The opposite end of the flanges **30** ends in a bulbous tip **32** or otherwise a tip which is defined by a part of the flange which has a cross-sectional area which is greater than that of a rest of the flange **30**. The bulbous tip **32** can extend to end of the most elongated length of the flange **30** and be defined as such even if the extreme end is tapered, as shown.

FIG. **2** shows a bottom plan view of a bottom disc of the rotating and collapsible discs of FIG. **1**. In this view the flanges **30** with tips **32** are shown being curvilinearly oriented and passing into respective elliptical portals **22** of the bottom disc **20**. The elliptical portals can be non-circular or circular. A "non-circular" portal, for purposes of this disclosure, is one which has an eccentricity of at least 0.05.

FIG. **3** shows a side elevation view of the rotating and collapsible discs of FIG. **1** in an expanded condition. In the expanded condition the elongated length of the flanges **30** is most visible and outside of the bottom disc **20** with the bulbous tip **32** and only a small minority (less than 20%) of the flange length within the bottom disc **20**.

FIG. **4** shows a side elevation view of the rotating and collapsible discs of FIG. **1** in a collapsing condition. Here, the flanges **30** are at least 40% inside of (surrounded by) the bottom disc **20** and more particularly, a hollow track **34**. In this view, one can see the bulbous tip **32** abuts edges of the hollow track **34**. The abutment can be on either side of the bulbous tip and/or circumferentially around all sides of the bulbous tip. The bulbous tip **32**, as shown, is slightly compressed by the track **34**. The friction between the tip **32** and track **34** prevents a respective flange **30** from moving within the track **34** when the discs **10** and **30** are at rest with respect to one another. Further, the friction in the track keeps the discs **10** and **30** at rest with respect to one another, but one can rotate the discs **10** and **30** with respect to one another to move the flanges **30** more in or out of the portal **22** and disc **30**. Thus, by rotating the discs **10** and **30** in opposite directions from each other, one can either causes the flanges **30** to be further inserted or further removed from the disc **30** and the discs **10** and **30** to be moved closer or further way from each other as the flanges extend in a more vertical (top to bottom) or more horizontal (opposite of vertical) direction and become more curved with an inflection point moving up the flange(s) **30** as the discs are moved closer together.

FIG. **5** shows a side elevation view of the rotating and collapsible discs of FIG. **1** in a collapsed condition. Here, the majority or large majority (80%+) of each flange **30** is within the track **34** of the bottom disc **20** and the discs **10** and **30** are closest together.

FIG. **6** shows a solid top and side perspective view of rotating and collapsible discs of FIG. **1**. FIG. **7** shows a bottom and side perspective view of rotating and collapsible discs of FIG. **6**. FIG. **8** shows a first elevation view of the rotating and collapsible discs of FIG. **6**. FIG. **9** shows a second elevation view of the rotating and collapsible discs of FIG. **6**. FIG. **10** shows a third elevation view of the rotating and collapsible discs of FIG. **6**. FIG. **11** shows a fourth elevation view of the rotating and collapsible discs of FIG. **6**. These figures allow the viewer to see a completed version from the product from all sides. Note that the flanges are curvilinear and extend in a curvilinear manner into the portals of the bottom disc where, when pressed into the disc further, the flanges then extend horizontally across the disc in embodiments of the disclosed technology.

The covers can be identical or substantially identical where "substantially identical" is defined as having a same or substantially the same circular circumference of a most elongated or largest plane but having different depths and/or lips. For example, the top disc **10** can have a downward extending lip. That is, having different depths is still to be considered within the definition of "substantially" provided in the Summary of this disclosure.

Referring to all of the embodiments simultaneously, the devices can be procured out of two molds and flanges with a frictional end, slidable hinges, etc. The two molds can be identical or substantially identical (e.g. but for a lip or depth of a disc). Thus, a mold can be used to create a disc and flange together or separately with other such corresponding molds making up a bottom side thereof.

While the disclosed technology has been taught with specific reference to the above embodiments, a person having ordinary skill in the art will recognize that changes can be made in form and detail without departing from the spirit and the scope of the disclosed technology. The described embodiments are to be considered in all respects only as illustrative and not restrictive. All changes that come within the meaning and range of equivalency of the claims are to be embraced within their scope. Combinations of any of the methods, systems, and devices described herein-above are also contemplated and within the scope of the disclosed technology.

I claim:

1. A set of collapsible discs comprising:

a top and bottom disc;

a plurality of individual flexible flanges extending from said top disc through respective portals in said bottom disc;

wherein each of said plurality of individual flexible flanges extends further or less far into said respective portals in said bottom disc when said top and bottom disc are rotated relative to one another;

wherein each of said respective portals in said bottom disc have an elliptical and non-circular cross-section.

2. The set of collapsible discs of claim **1**, wherein each of said plurality of individual flexible flanges has an end which is wider than a body thereof.

3. The set of collapsible discs of claim **1**, wherein in a resting condition, each said end is frictionally held within said bottom disc.

4. The set of collapsible discs of claim **3**, wherein each said end is circumferentially abutted against a respective hollow track within said bottom disc.

5. The set of collapsible discs of claim **1**, wherein each of said respective portals extends into a track which bends in a curvilinear manner until becoming parallel with a top and/or bottom side of said bottom disc.

6. The set of collapsible discs of claim **1**, wherein said plurality of individual flexible flanges are three individual flexible flanges connected to said top disc at 120 degree increments there-around.

7. Two discs comprising:

at least three flexible flanges fixedly connected to a top disc and slidably connected through at least three portals of a bottom disc, wherein each portal of said at least three portals corresponds to a flanges of said at least three flanges;

track extending from said portal into an inner space of said bottom disc;

a bulbous end of said each flange of said at least three flanges having an uncompressed cross-sectional area equal to or greater than that of a cross-sectional area of said hollow track;

wherein each said portal has a non-circular elliptical cross-section at an opening thereof.

8. The two discs of claim **7**, wherein said track extends curvilinearly from a respective said portal.

9. The two discs of claim **8**, wherein said curvilinearly extending track turns into a horizontal section of said track.

10. The two discs of claim **7**, wherein said two discs are rotatable and reversible rotatable with respect to one another.

11. The two discs of claim **10**, wherein rotating said top disc and said bottom disc with respect to one another in a first direction causes each of said at least three flexible flanges to be further inserted into said bottom disc.

12. The two discs of claim **11**, wherein rotating in said first direction further causes said top disc and said bottom disc to be pulled closer together.

13. The two discs of claim **11**, wherein rotating said top disc and said bottom disc with respect to one another in a second direction, opposite said first direction, causes each of said at least three flexible flanges to be partially pulled out from an interior of said bottom disc.

14. The two discs of claim **13**, wherein rotating in said second direction further causes said top disc and said bottom disc to be pushed away from each other.

* * * * *