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Inventing New Magnetic Compasses with Readings and Indications Farther from The North and South: New Indications for the Establishment of a Completely New Science

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ABSTRACT: *This research looks for the great capabilities of the compass, if the necessary engineering modifications are made and some of them are invented. It can provide many scientific indications and readings that are beyond limitation, and sets some conditions for the success of creating the new magnetic compasses, in terms of the axis of the magnetic needles, it is best to manufacture them with laser precision to match in size, weight and all characteristics The axis of the suspension of the free-moving circle, the axis of the upper surface of the free-moving circle, which must have a large diameter because the magnetic poles will be attached to it, and a fixed circle must be placed around the moving circle for comparison and monitoring of changes in movement. of between it ; Independent compass to indicate independent free magnetic north, independent free magnetic south compass, east end north pole compass, west end north pole compass, east end south pole compass, west end south pole compass, and then north declination compass with an angle of inclination of the south magnetic needle 90 Degree (east and west), a compass of multiple magnetic poles with 3 different poles, and another with 4 magnetic poles, then 5 independent magnetic poles, and so on up to 12 magnetic poles of different distribution on the compass circle, then the research reviews the features of the new innovative magnetic compasses. . . (It is divided into: - specific characteristics - some of which are under test - and others are out of concept so far), most notably: - its ability to provide scientific readings that are more accurate than all previous magnetic compasses, the discovery of a "magnetic fingerprint for every geographical point on the surface of the planet", compared to "the fingerprint" "Magnetism" for the same place due to the shifting of the north and south magnetic poles to discover natural resources that have a great relationship with magnetism, including iron, nickel and chromium, inferring the distortions of the magnetic poles (especially when used around them), discovering, identifying and tracing the multiple magnetic poles (in other planets), then subtracting Conclusion A new conception that makes the total number of compasses capable of reaching hundreds, and even thousands of them with their many complex branches, and even those that have not been proven to be important in monitoring a new geometric reading; It is possible to increase its usefulness in scientific applications in the outer space of the planet Earth, and in other planets.*

KEYWORDS: magnetic compasses, north, south, new indications, new science

INTRODUCTION

This research is based on an idea that seemed fanciful at first. It considers that: “If it is possible to change the design of the magnetic compass, it is possible to give completely new readings and indications; Conditions, assumptions, and engineering drawings that complement the idea, and some initial concepts have been developed to help activate the idea and turn it into an independent scientific project.

We kept hoping, albeit slight, in discovering something new, searching for initial feasibility, scientific benefit, and actual benefit in something imaginary, with the absence of any tangible evidence that would encourage going into the experiment. The primary goal is to cause the magnetic needle to be in a state of confusion and confusion, and freedom under organized pressure, to know its behavior in a state of turmoil.

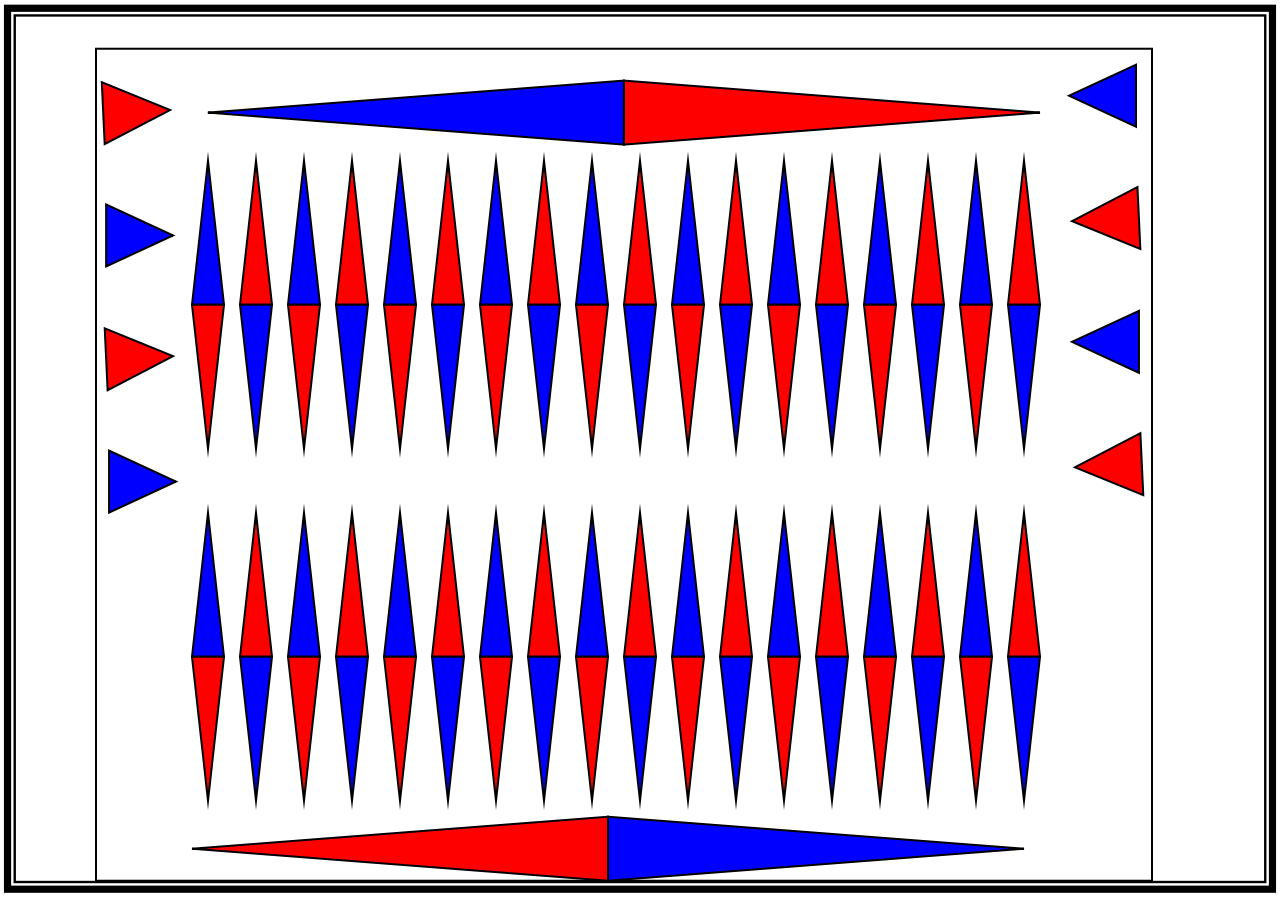
Is it possible to monitor some new scientific changes and record the least magnetic deviation in the movement, even if it is simple, which a normal magnetic compass would not be able to monitor? Deformations or multiple heads, and it is possible to monitor several heads or sub-poles for each different magnetic pole, these are just special theoretical perceptions..... so far.

This research took the **"Real Magnetic Compasses"** tool - not electronic compasses - as a primary basis for conducting initial applications to make the scientific idea successful, and to monitor its new readings, as a kind of scientific guide and guide that allows converting physical magnetic compasses into an **"Electronic program"** (electronic magnetic compasses) on the computer. later.

Although this research is rushing forward without any step back and the narration of ancient history; But there was a need to search on the Internet for a **“Compass”** despite our great knowledge of the content of that, but to meet the need to refer to references and scientific sources to approve the research and pass it for publication validity, attempts were made to trace its origins, and it was found that the credit for the Chinese, and that the use of the magnetic compass as a tool for discovery Directions It was sometime before the year 1044 A.D *(Wikipedia encyclopedia; Compass)* [(1)] - What year are we now? That is, a thousand years ago with precision, and for the truth, many formal modifications were made to the compass, such as placing the protractor on top of it, placing it in a liquid to float freely, or holding it on a pointed needle, but rather it was colored and decorated, and only, its essence was not changed, its character and purpose was not altered. to something further north and south).

First: Conditions for the success of inventing the new magnetic compasses.
Several conditions necessary for effective scientific success have been established, based on several indispensable engineering axes, namely:

Axis of magnetic needles: -
It requires that the magnetic needles be of the same size, weight, density and even impurities, and one of the best ways to achieve this is by bringing a plate of magnets and cutting a number of magnetic needles of equal size with laser precision, while keeping the plate after it is unloaded from the magnetic needles, as evidence of the validity of the experiment, And as an aid to keeping needles as a kind of long-term storage *(Fig. 1).*



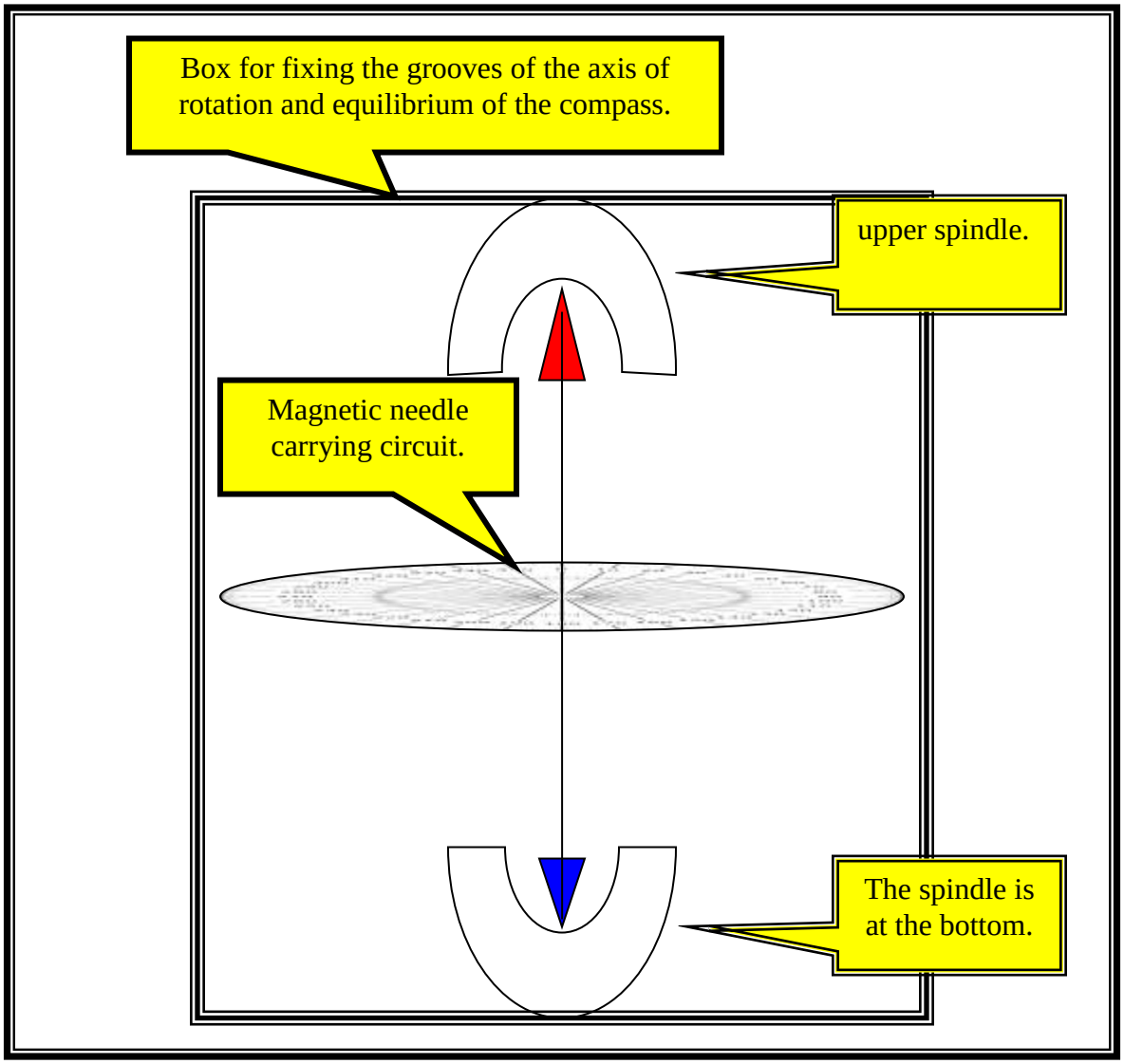
Source: Prepared by the researcher.
Fig (1) Illustrative model for preparing several different sizes of magnetic needles of the same size, density, force of attraction and impurities by selecting and cutting a sheet of magnet with laser precision.

Free-moving circuit suspension axle: -

It requires adopting a new method in how to suspend a free-moving circle, on which different magnetic needles will be placed in an innovative way, which will cause the circle to become unbalanced and prevent it from moving. The movement will cause unnecessary scientific frustration.

Is it possible to rely on the **"Flotation method"?** , the same problem will be repeated, and due to the difference in weight at the ends of the circle, it will cause inaccurate readings, and if it is possible to solve the difficulty of equilibrium, the problem will end, but it will not have any role if it is used in outer space if necessary.

It is better to **"Rely on the double suspension method"** (Fig. 2), which is based on stability on a needle at the bottom, and another needle at the top that prevents it from falling, so that the two needles rotate in a **"deep, narrow focus surrounded by a frame."** This method is suitable for application in various geographical environments on The surface of the planet Earth, as well as in outer space, the planets of the solar system and others.



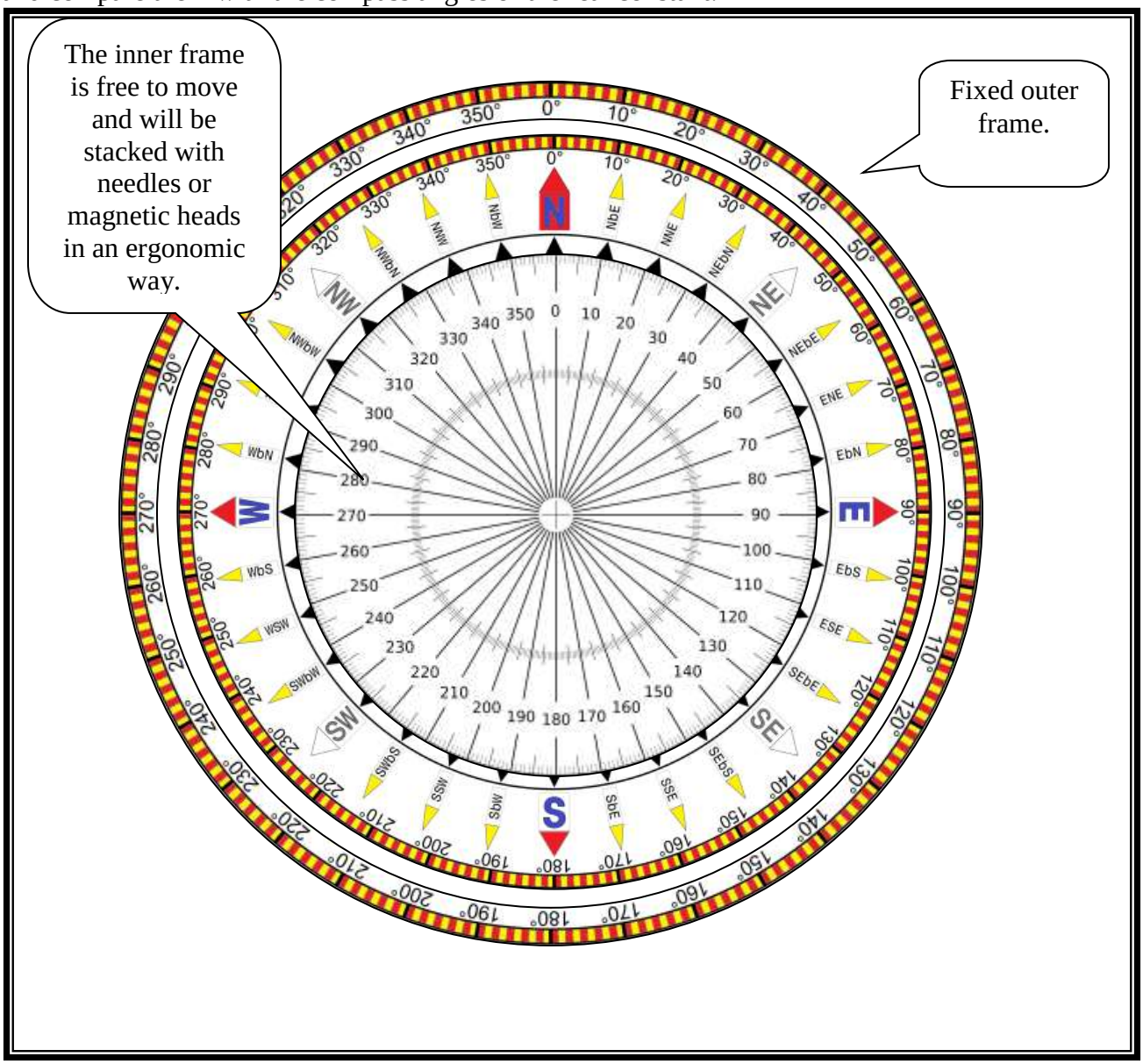
Source: Prepared by the researcher.

Figure (2) The method of suspending the free-moving compass circle by relying on a needle at the bottom that stands in a deep focus surrounded by a frame, so that the same pace is repeated at the top.

Axis of the upper surface of the free-moving circle: -

This is the part on which the magnetic needles of equal and equal size will be placed, and it is better to insert the angles of the circle *(360 degrees)* with precision, and to drill grooves to put the magnetic needles inside, and it also requires maintaining the freedom to rearrange and stack the magnetic needles and replace them or dispense with some of them according to the applications New experiments on the magnetic compass in general.

The axis of the stationary circle surrounding the free-moving circle: -
It is the fixed circle surrounding the **"free-moving"** circle *(Fig. 3)*, and it is the one that must provide the circle's angles *(360 degrees)*, and adjust them first, in order to accurately indicate the "magnetic north", so that the **"zero"** angle *(360)* stands exactly at it, which The zero will be placed in the axis that is free to move, to reach the stage of ***"zero compass"*** (placing the zero in front of the zero), and to monitor the new changes, and compare them with the compass angles of the real constant.



Source: Prepared by the researcher.
Fig (3) ***The circle is free to move around it the inserted frame (360 degrees) and aligning at zero in the zeroing phase.***

Second: Experiments, applications and scientific models of the new magnetic compasses. . . What is required ?.

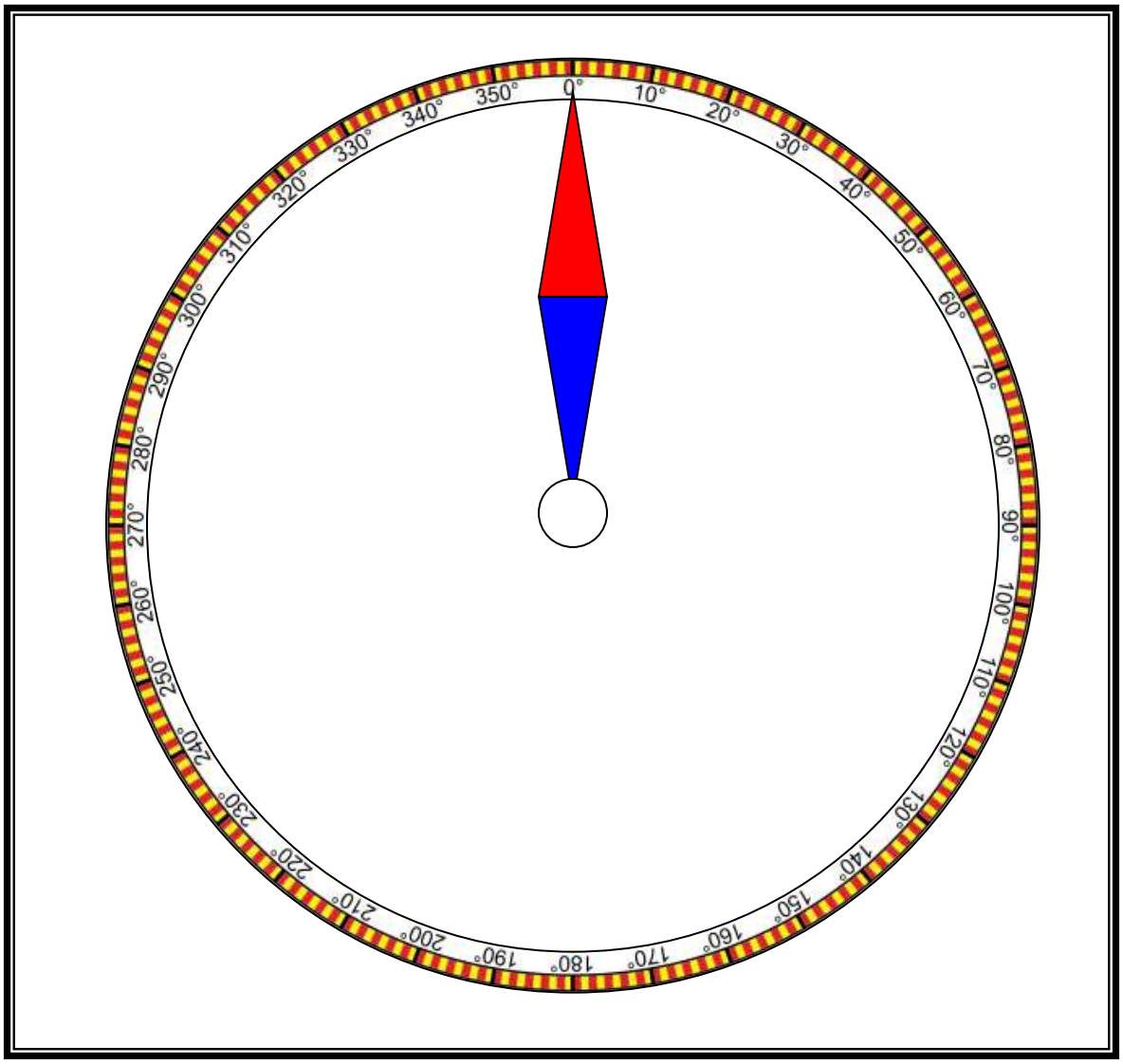
Here we used a number of strange geometric designs, as well as drawings with different sides, and it was possible to adopt the Latin (English) letters due to the large number of sides and angles that are easy to use to place magnetic needles on their edges, with the arrangement of the magnets in them, and drawings of gymnastics, exotic graphics; It may be applied in a new design of new magnetic compasses.

When we consider the great magnetic force towards the north pole in the northern magnetic hemisphere, while the opposite happens; The force of the southern attraction is superior to the southern magnetic hemisphere. It is expected that the results will vary according to the geographical area of its observation; The results will vary from place to place, and even the same reading will be reversed when it is compared with its counterpart in the magnetic contrast regions.

Given the difference in results compared to northern versus southern attractions; It is also expected that a third effect will occur in the semi-neutral regions of attraction between the magnetic poles, which is the region located at the magnetic equator, or the belt separating the poles on the planet Earth.

Independent Free Magnetic North Compass: -

It is the most accurate definition of the strongest point in the "magnetic north pole", as it depends here on placing a strong magnetic needle pointing the red gravitational side to the northern end, in a position closer to the edges of the circle, *(Fig. 4)*, and not by sticking to stability in the axis of the circle, and it will Lead to the force of attraction from the north magnetic pole to prevail, while weakening the force and effect of attracting the south magnetic pole.

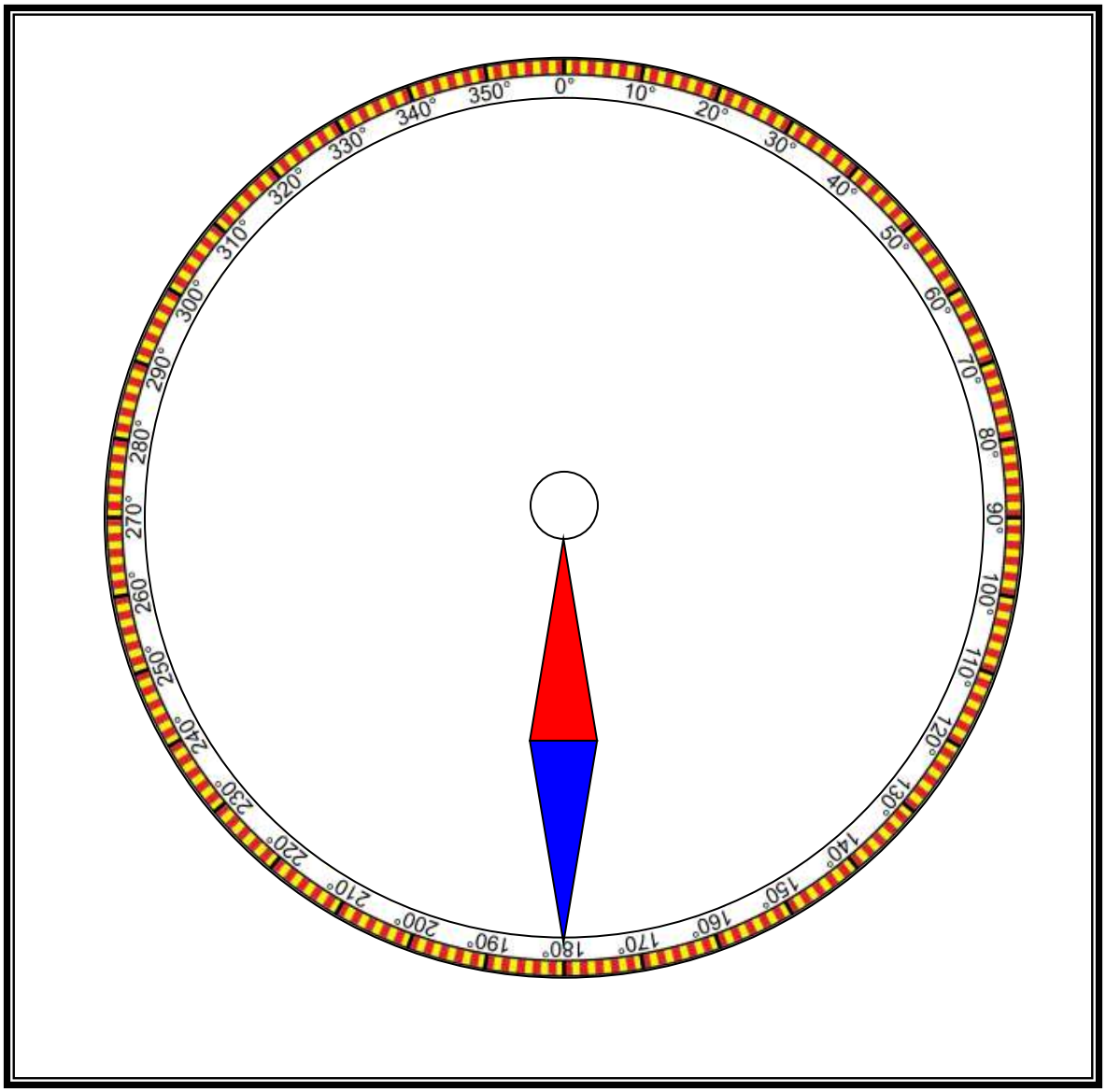


Source: Prepared by the researcher.

Fig (4) is the magnetic north end needle stationed away from the center of the circle to accurately denote the north magnetic pole.

Independent Free Magnetic South Compass: -

It goes the same way as before, but in the opposite way; A strong magnetic needle is placed, directing the blue gravitational side to the southern edge of the circle *(Fig. 5),* to prevail over the magnetic south pole attraction, while weakening the strength and effect of the north magnetic pole.



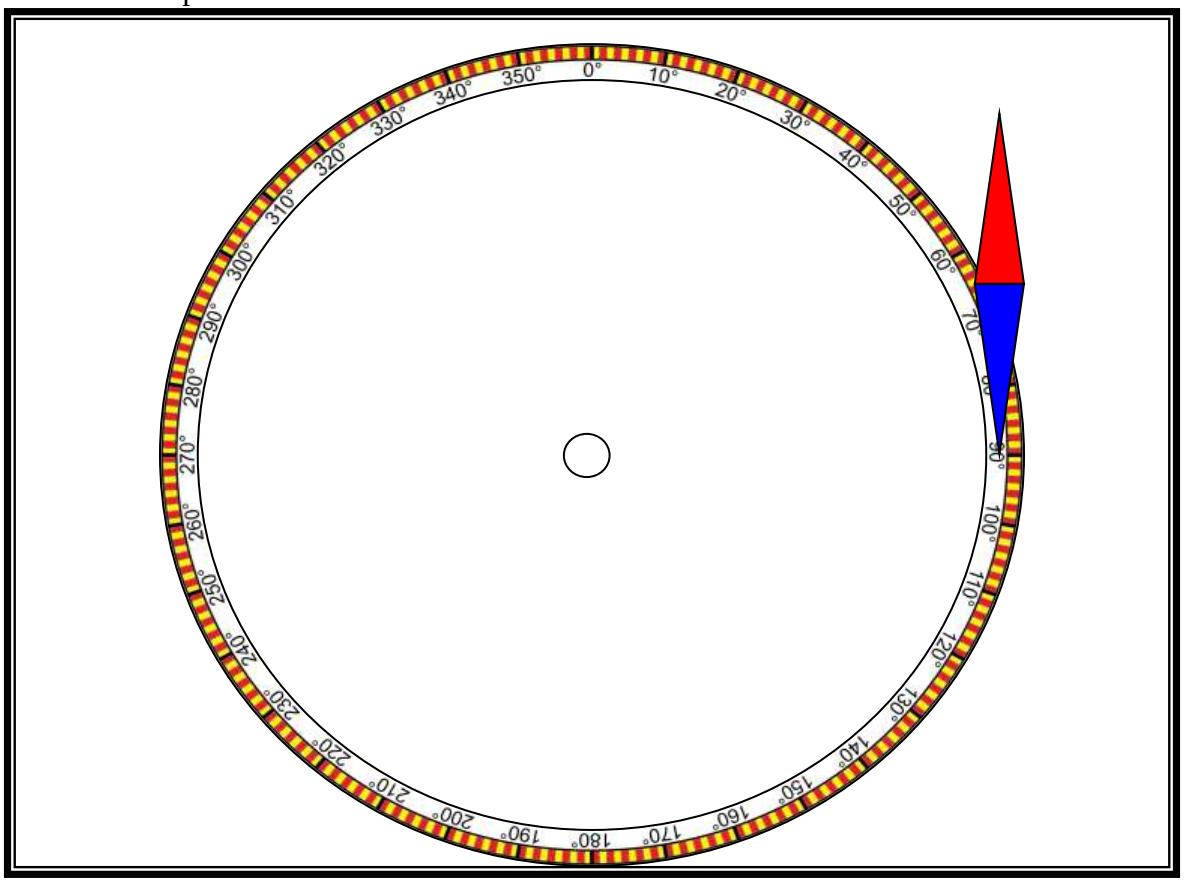
Source: Prepared by the researcher.

Figure (5) The magnetic south end needle stationed away from the center of the circle to accurately indicate the south magnetic pole.

Compass of the eastern end of the North Pole:

It is based on an initial conception of the idea that: "The **magnetic pole (north or south) is a broad slice and not a very small focus."** This compass can point to a wide magnetic strip, and monitor its eastern edge – and not the attraction to the center region – by a simple adjustment. At the site of the magnetic needle.

The engineering design is based on placing the magnetic needle at the eastern end *(Fig. 6)*, in order to be able to rotate the free-moving disk towards the North Pole, to stop at the northernmost point of attraction.

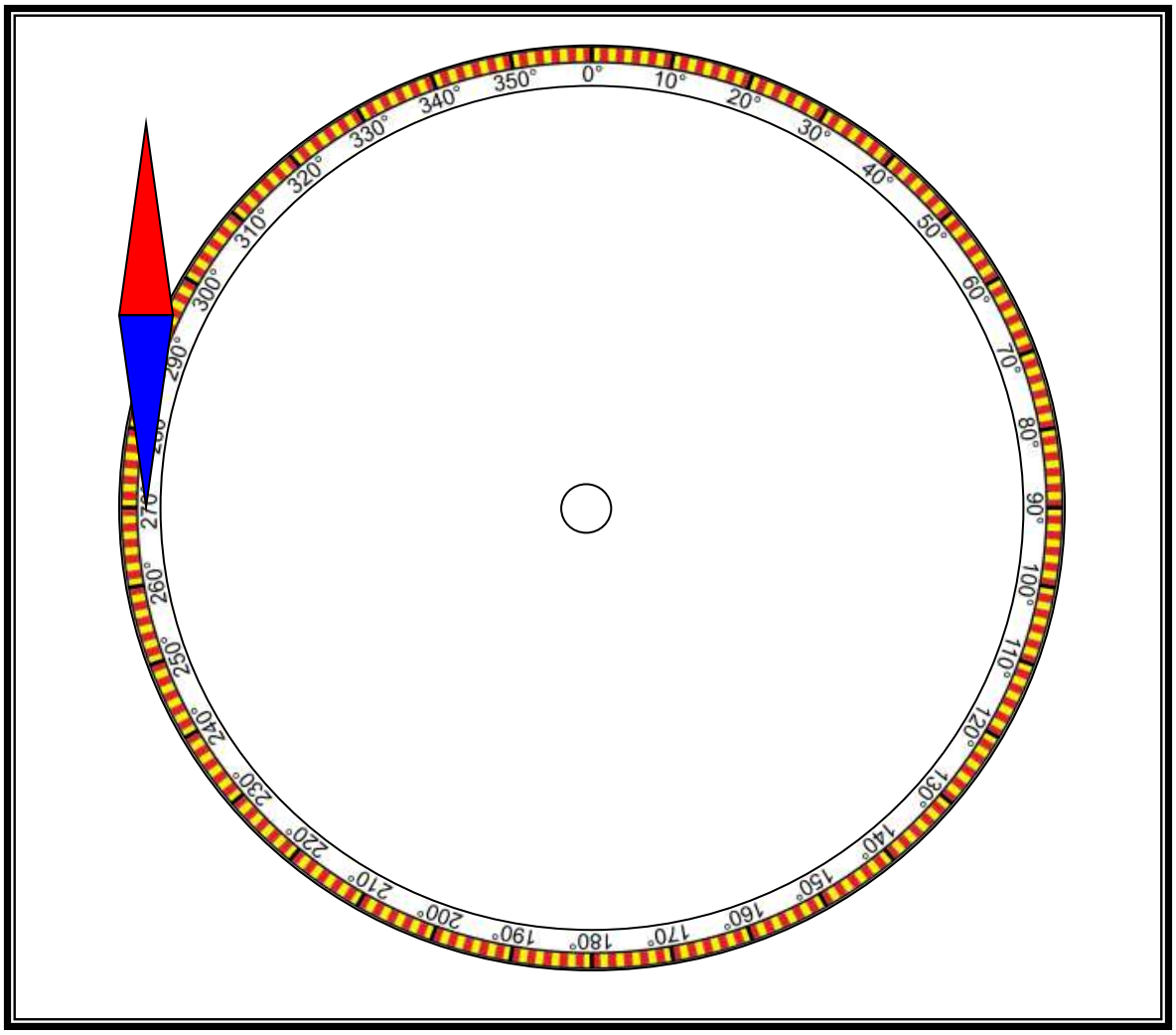


Source: Prepared by the researcher.

Figure (6) ***East End Compass (Stand at a 90-degree angle and then begin to rotate the dial to the nearest point to the North Pole).***

Compass of the West End of the North Pole:

The engineering design is based on placing the magnetic needle at the western end (Fig. 7), in order to be able to rotate the disk (free to move) towards the North Pole, to stop at the nearest magnetizing point to the north from the west.

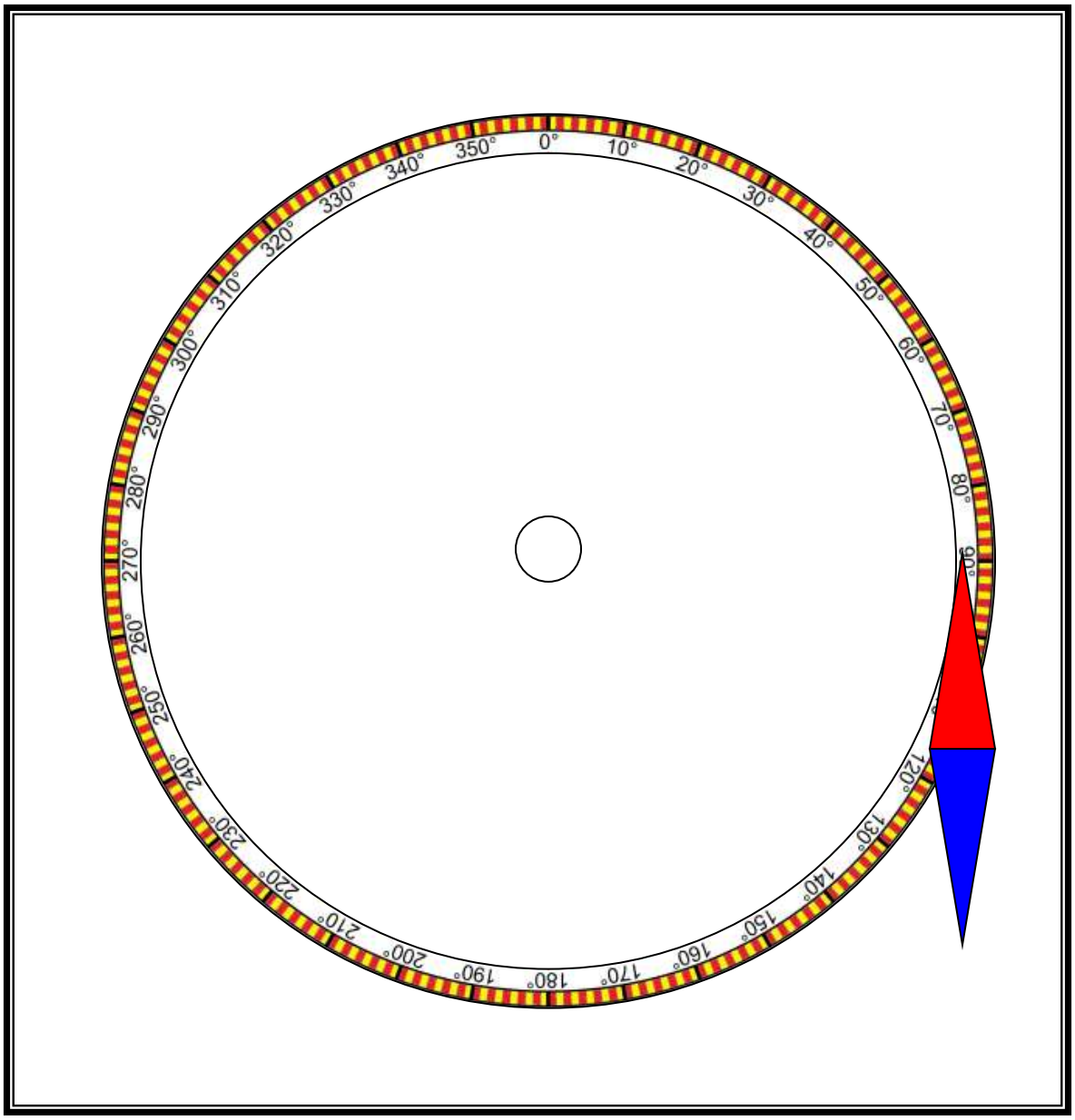


Source: Prepared by the researcher.

Fig. 7. West End Compass (Stand at a 270-degree angle and then begin to rotate the dial to the nearest west point to the North Pole).

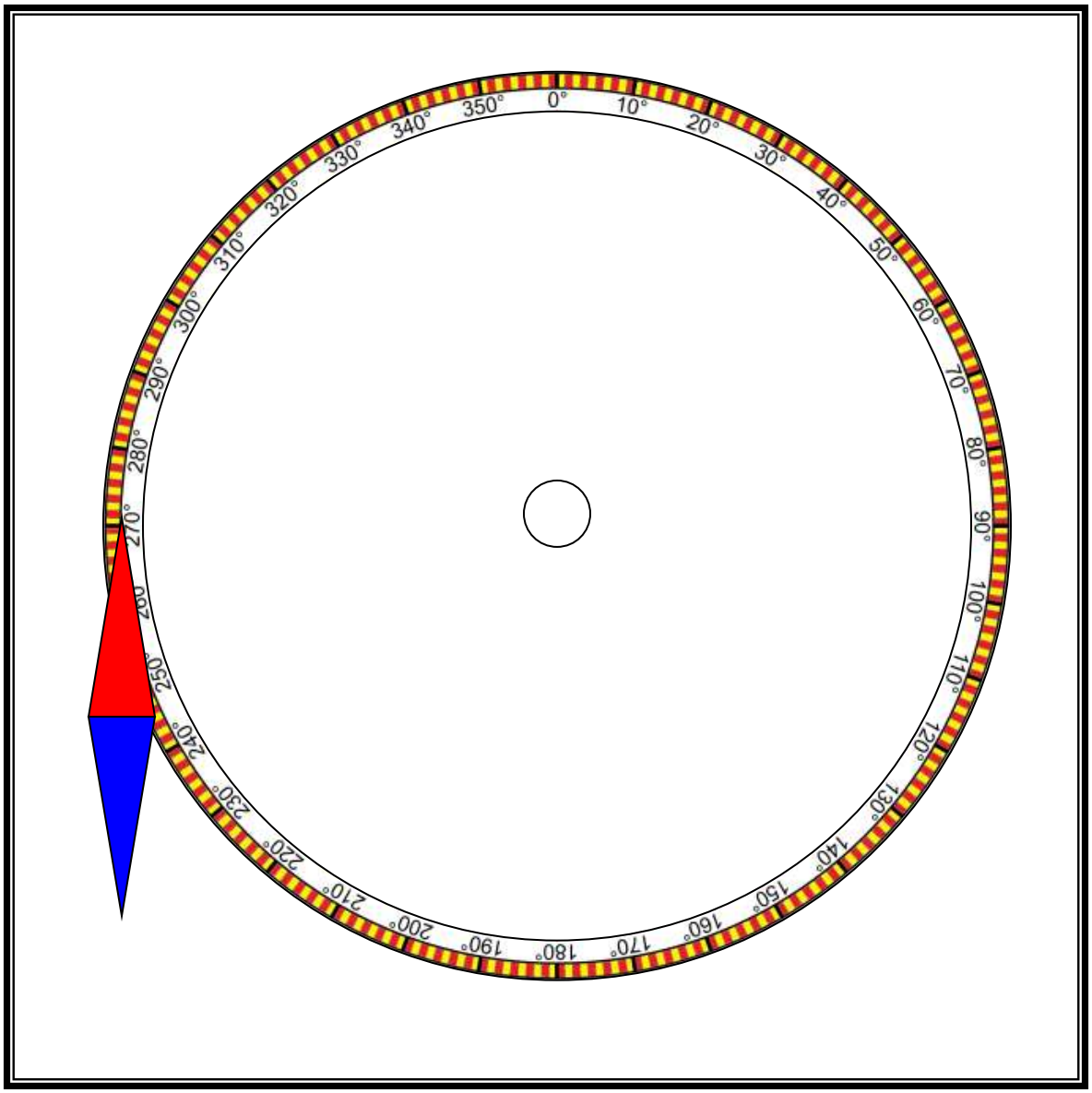
Compass of the eastern end of the South Pole:

The engineering design is based on placing the magnetic needle at the eastern end, in order to be able to rotate the disk freely moving towards the south pole *(Fig. 8)*, to stop at the nearest magnet to the south from the east.



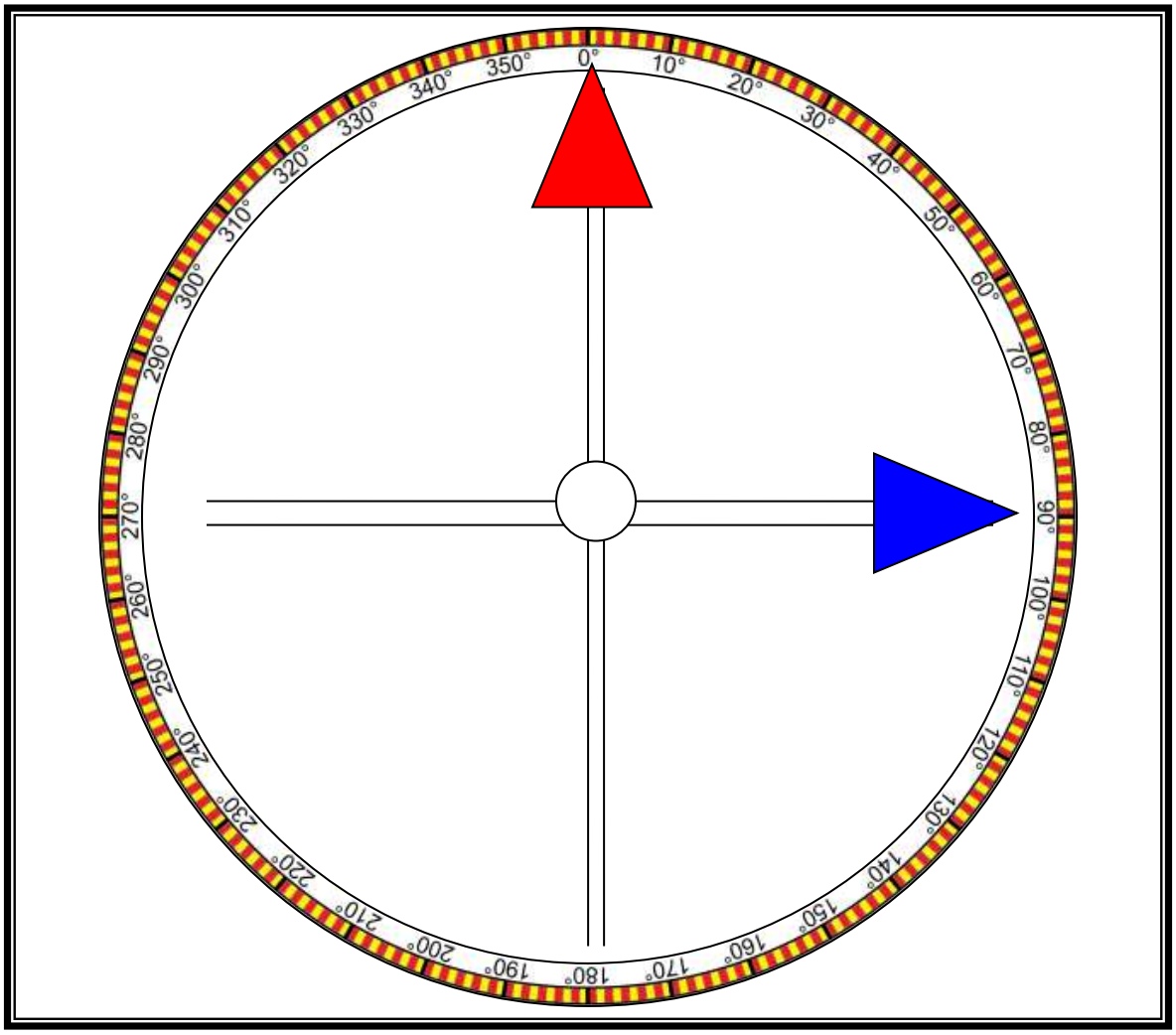
Source: Prepared by the researcher.
Figure (8) compass of the eastern end of the South Pole.

Compass of the western end of the South Pole:
The engineering design is based on placing the magnetic needle at the western end, ***(****Fig .9)* **,** in order to be able to rotate the disk free of movement towards the south pole, to stop at the nearest magnet to the south from the west.



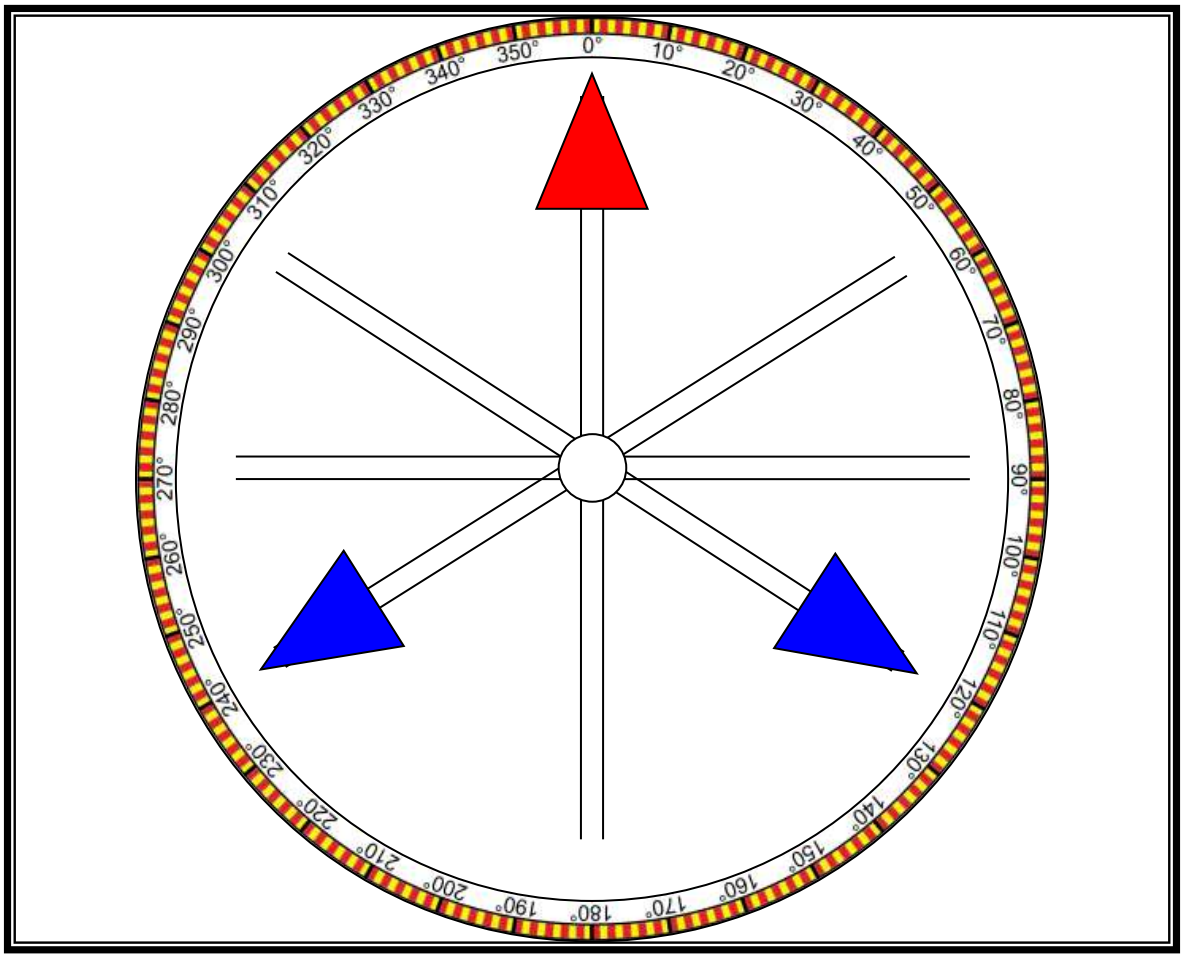
Source: Prepared by the researcher.
Fig (9) compass at the western end of the South Pole.

North declination compass with the angle of inclination of the south magnetic pole needle at an angle of 90 degrees (east and west).
Who will win and impose his power on the other? (Fig. 10), who will impose his reading on the other, and one of its advantages is to know the position and opinion of **"The lateral resistance of magnetic attraction",** to clarify the extent of magnetic interference from the surrounding environment as a distortion of the truth, causing errors in the compass reading.



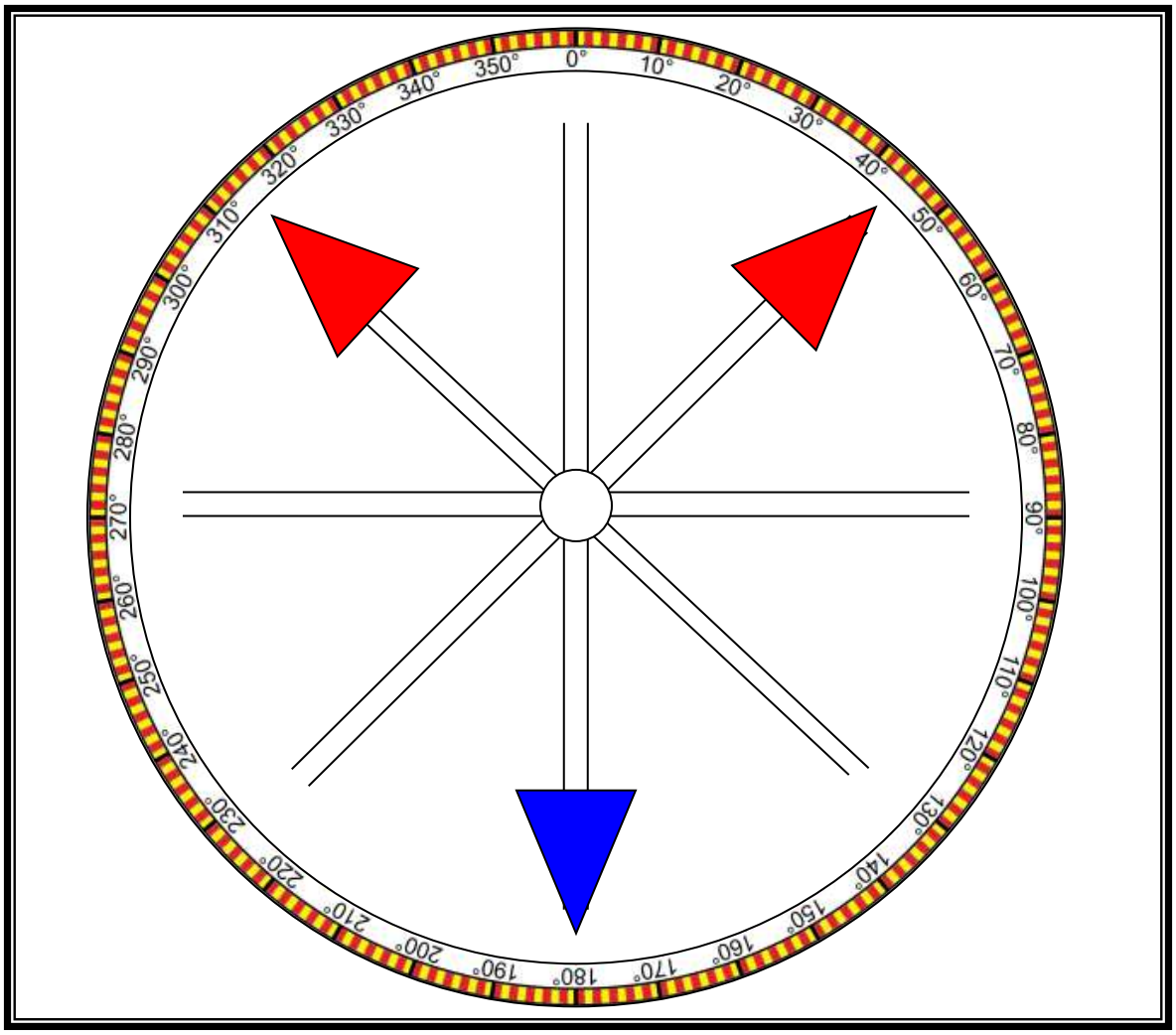
Source: Prepared by the researcher.
Fig.(10) A compass with 2 opposite magnetic heads (angle compass).

The multi-pole magnetic compass has 3 different poles.
It is a compass with 3 opposite magnetic heads, with one head every 120 degrees, *(Fig. 11- 12- 13)*, which is a famous sign for cars *(Mercedes) (compass of the objector person against 2 agreeable)*, and in the magnetic north hemisphere the red magnet will overcome to force its direction to the north with the interception of 2 attracted poles The other magnetic pole has the effect of shifting the compass reading.



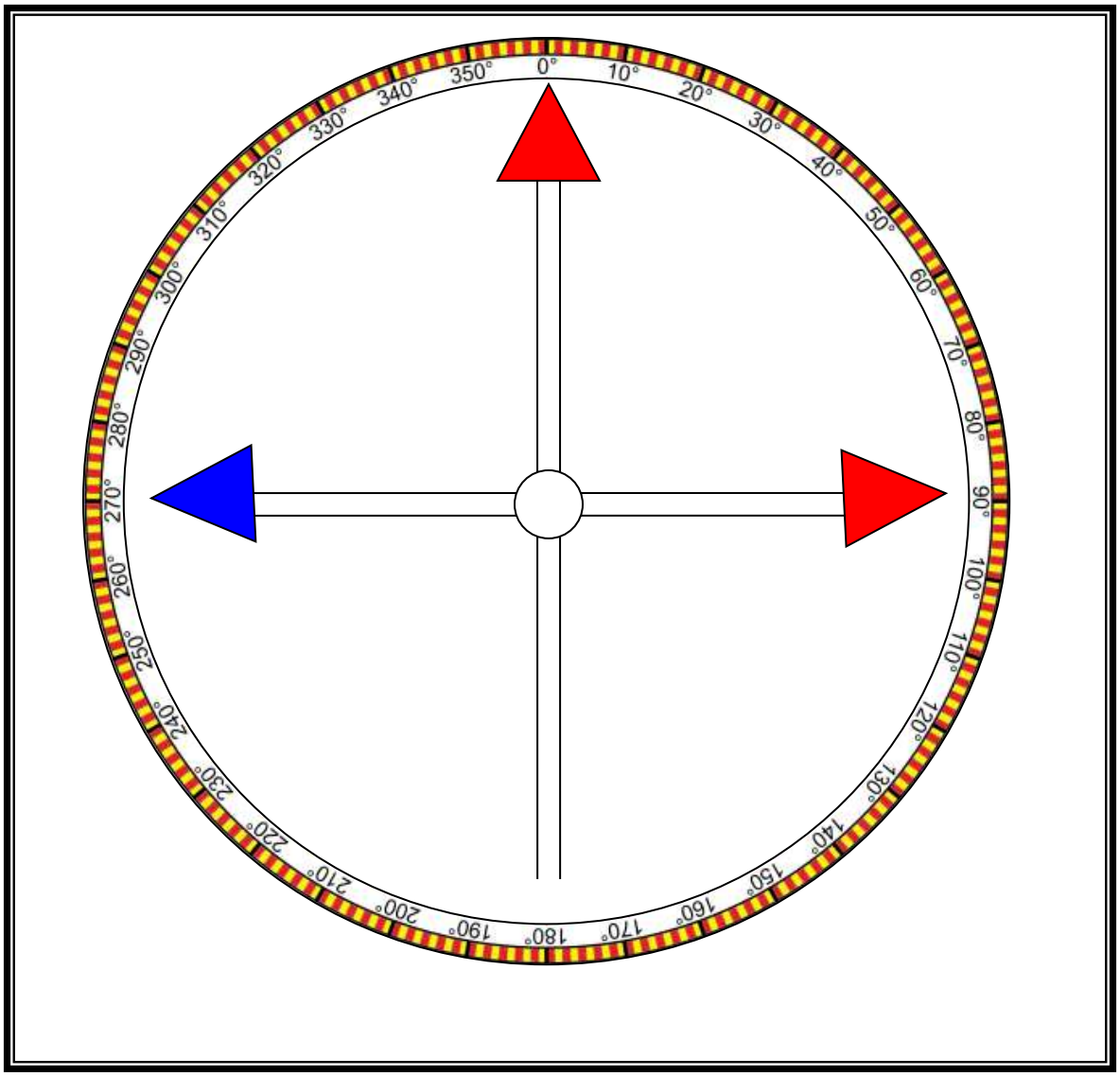
Source: *Prepared by the researcher.*

Fig.11. A compass with 3 opposite magnetic heads, at the rate of one head every 120 degrees, which is a famous sign for cars (Mercedes) (the compass of the objecting person in the face of 2 agreeables).



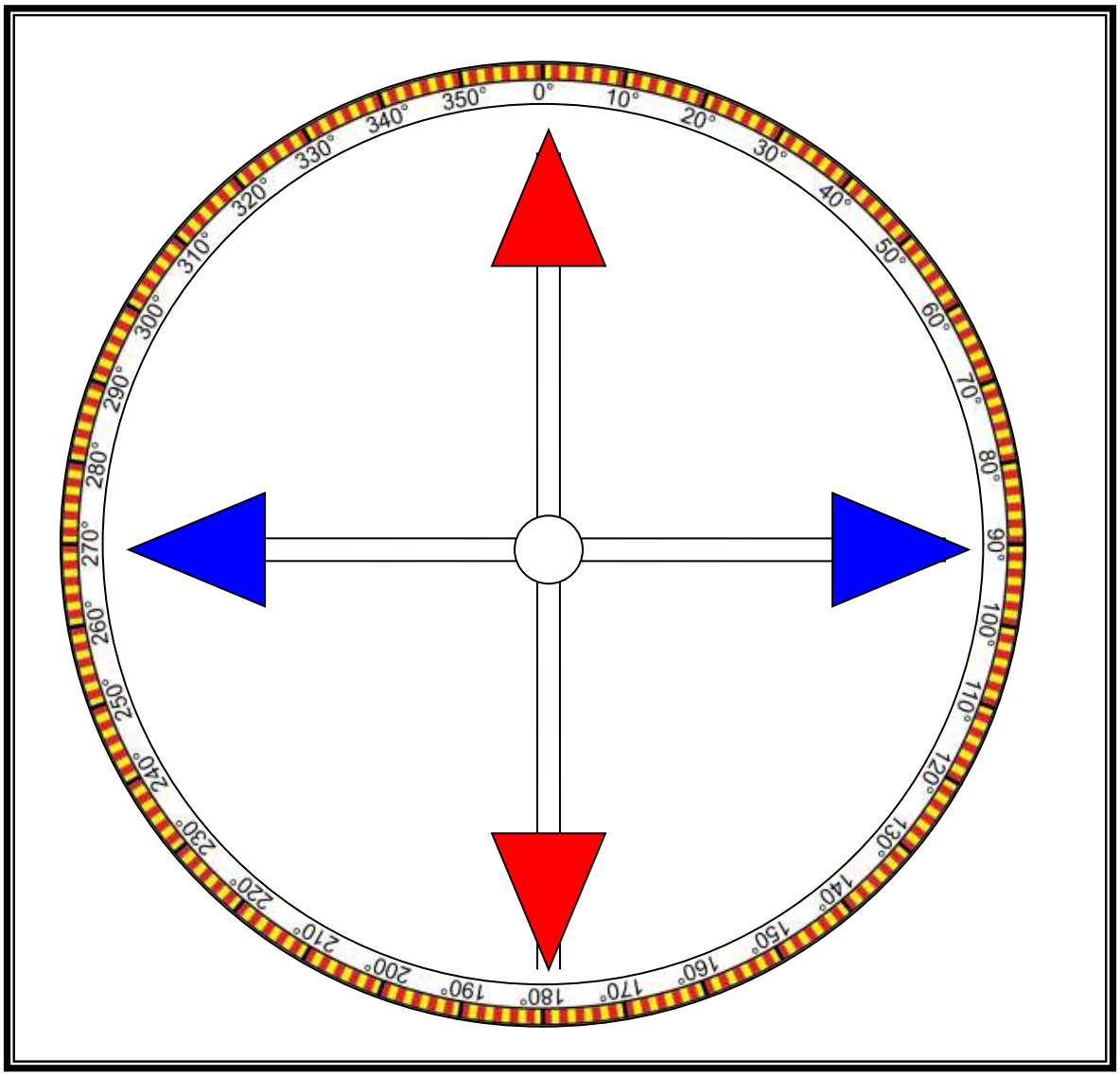
Source: *Prepared by the researcher.*

Fig. (12) A compass with 3 opposite magnetic heads (the compass of the objecting person in the face of 2 agreeing).



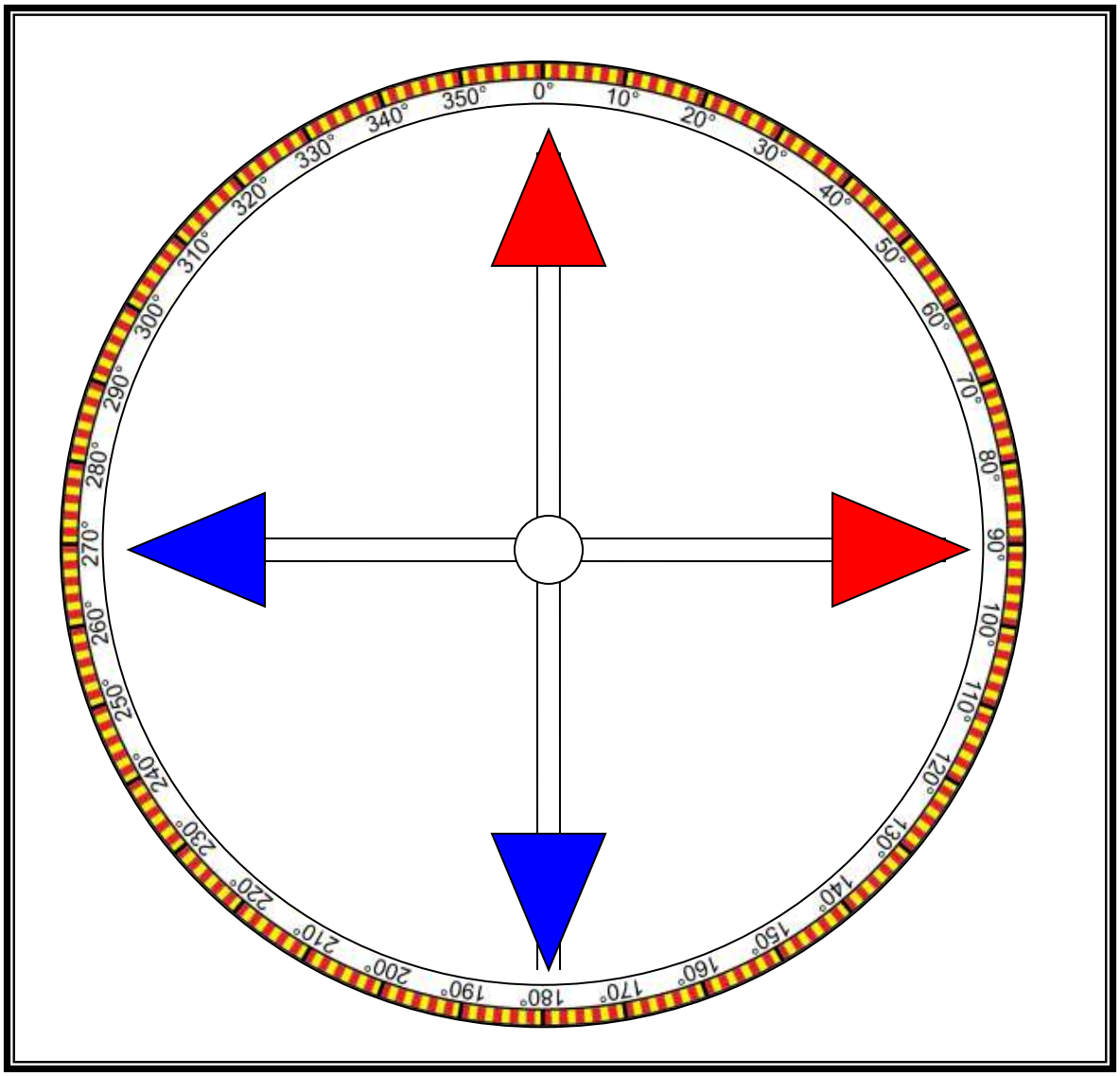
Source: Prepared by the researcher.
Fig. (13) compass with 3 magnetic heads - the compass of the opposing person (takes the shape of the letter "T").

Multiple magnetic heads compass with 4 different poles
The enthusiasm and suspense increases here, and the compass falls into a lot of confusion and complex situations that will constantly increase in frequency, and will give completely new readings, which will have great practical effects, *(Fig. 14-15-16).*



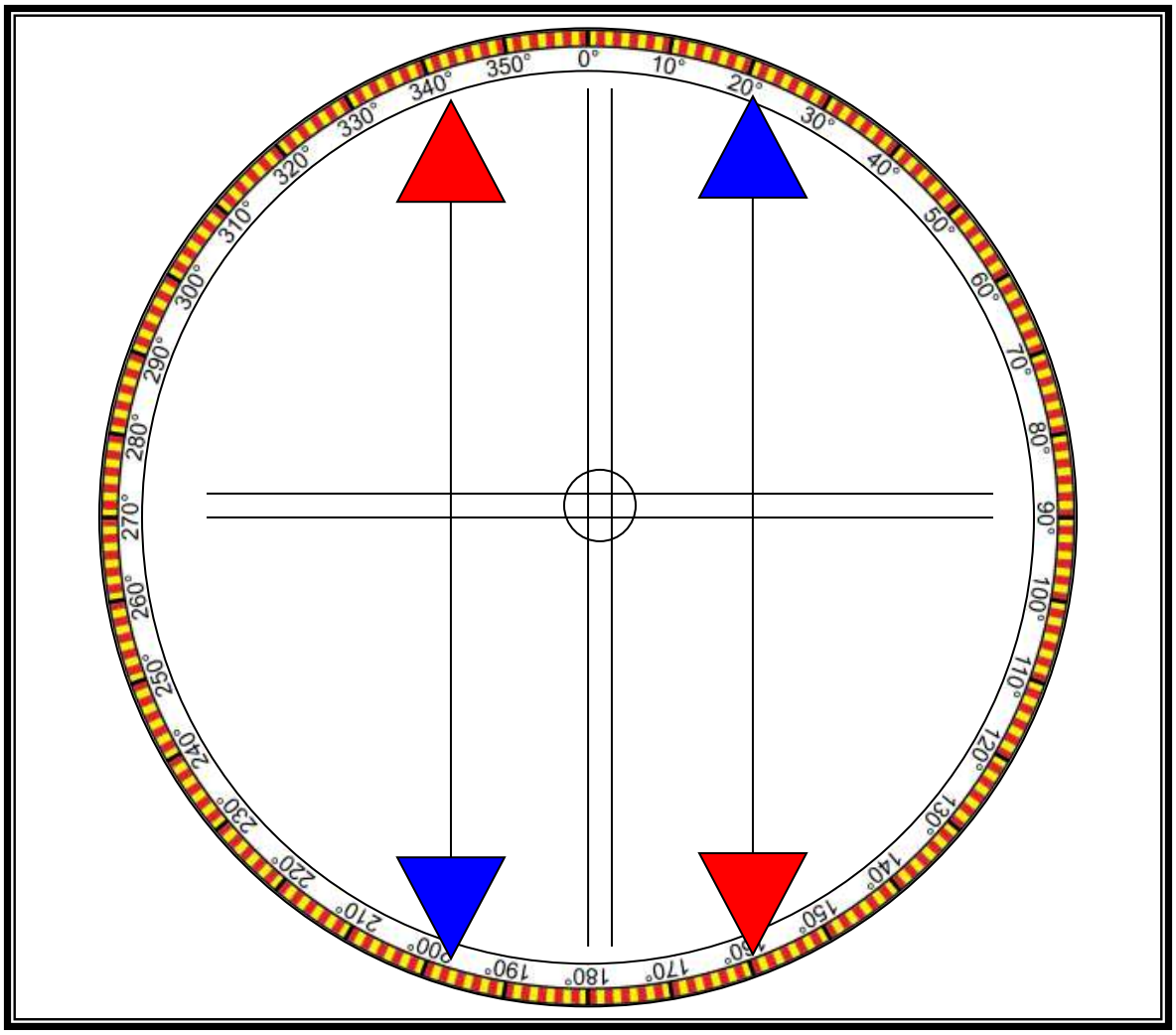
Source: Prepared by the researcher.

Fig. (14) A compass with 4 opposite magnetic heads (similar to the shape of the +/or cross).



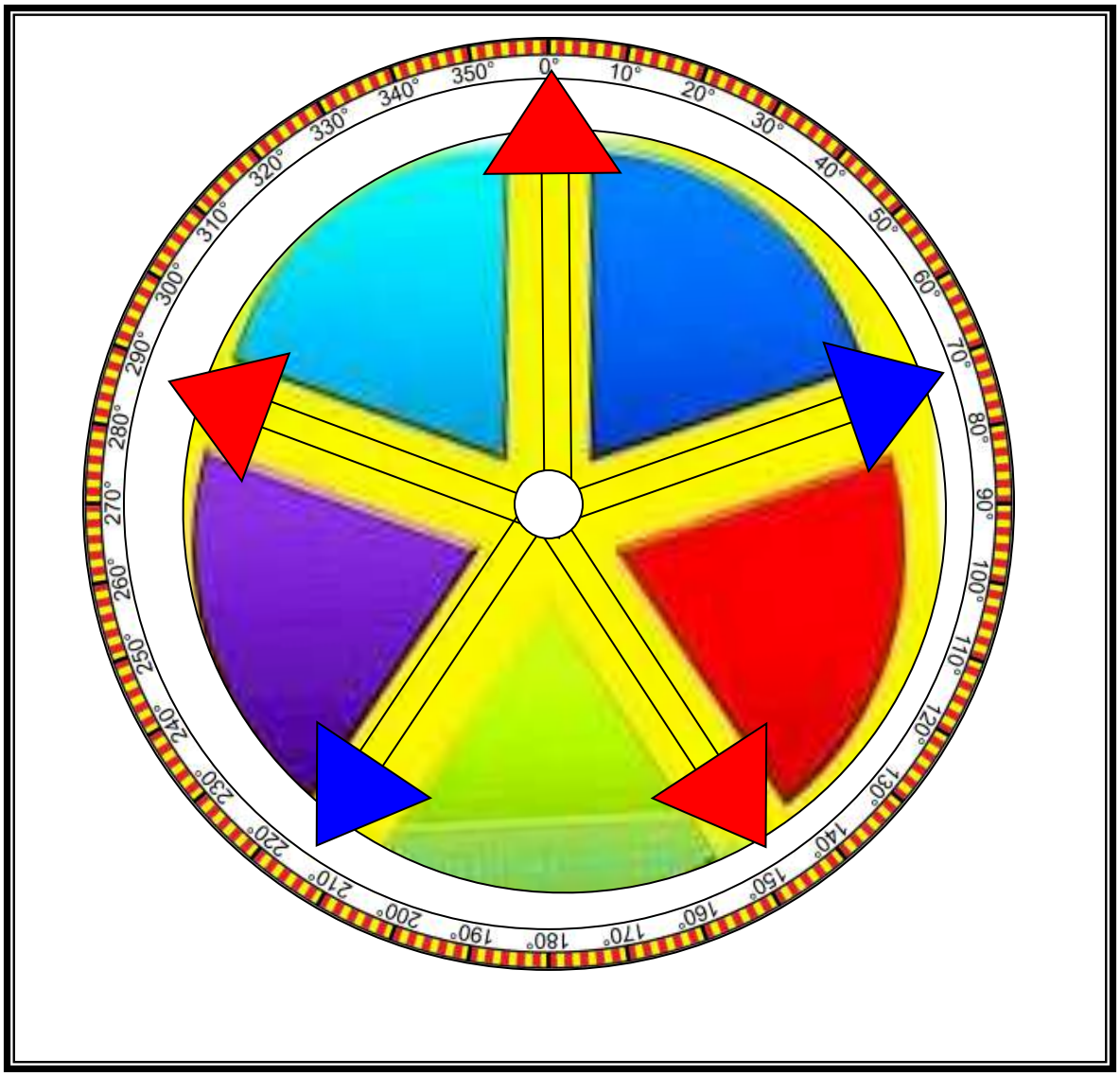
Source: Prepared by the researcher.

Fig. (15) A compass with 4 opposite magnetic heads (with an average magnetic head every 90 degrees) 2 are attracted to the north next to each other, and 2 are attracted to the south next to each other.



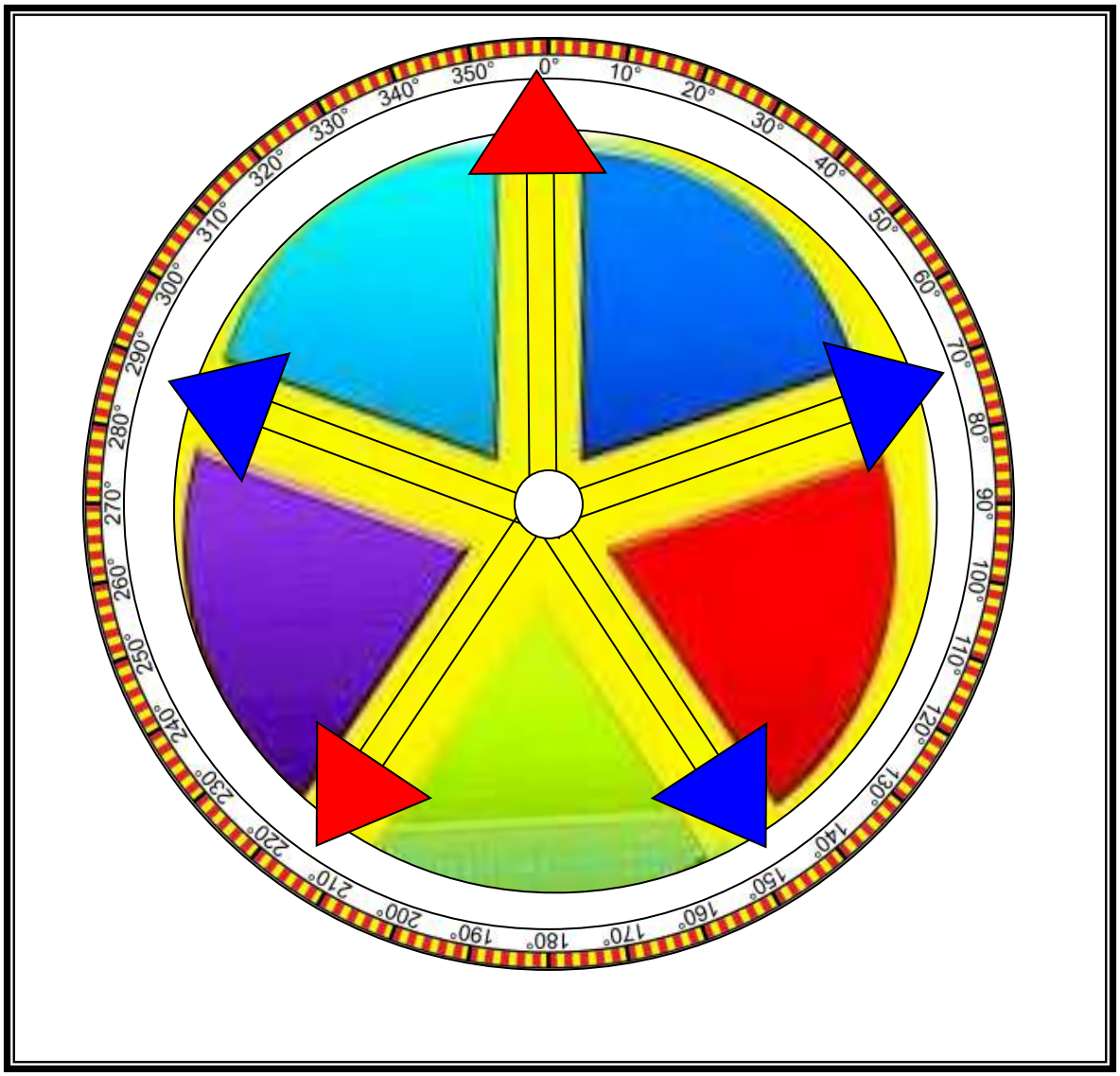
Source: Prepared by the researcher.
Fig. (16) a compass with 4 opposite magnetic heads (the letter "H").

5-pole multi-point magnetic compass (similar to a starfish).
We use here only one model, *(Fig. 17-18),* knowing that there are many models and shapes that can use 5 different magnetic poles, to provide many results, and various magnetic readings.



Source: Prepared by the researcher.

Fig. (17) A compass with 5 magnetic heads "starfish" (3 magnets to the north - 2 to the south).

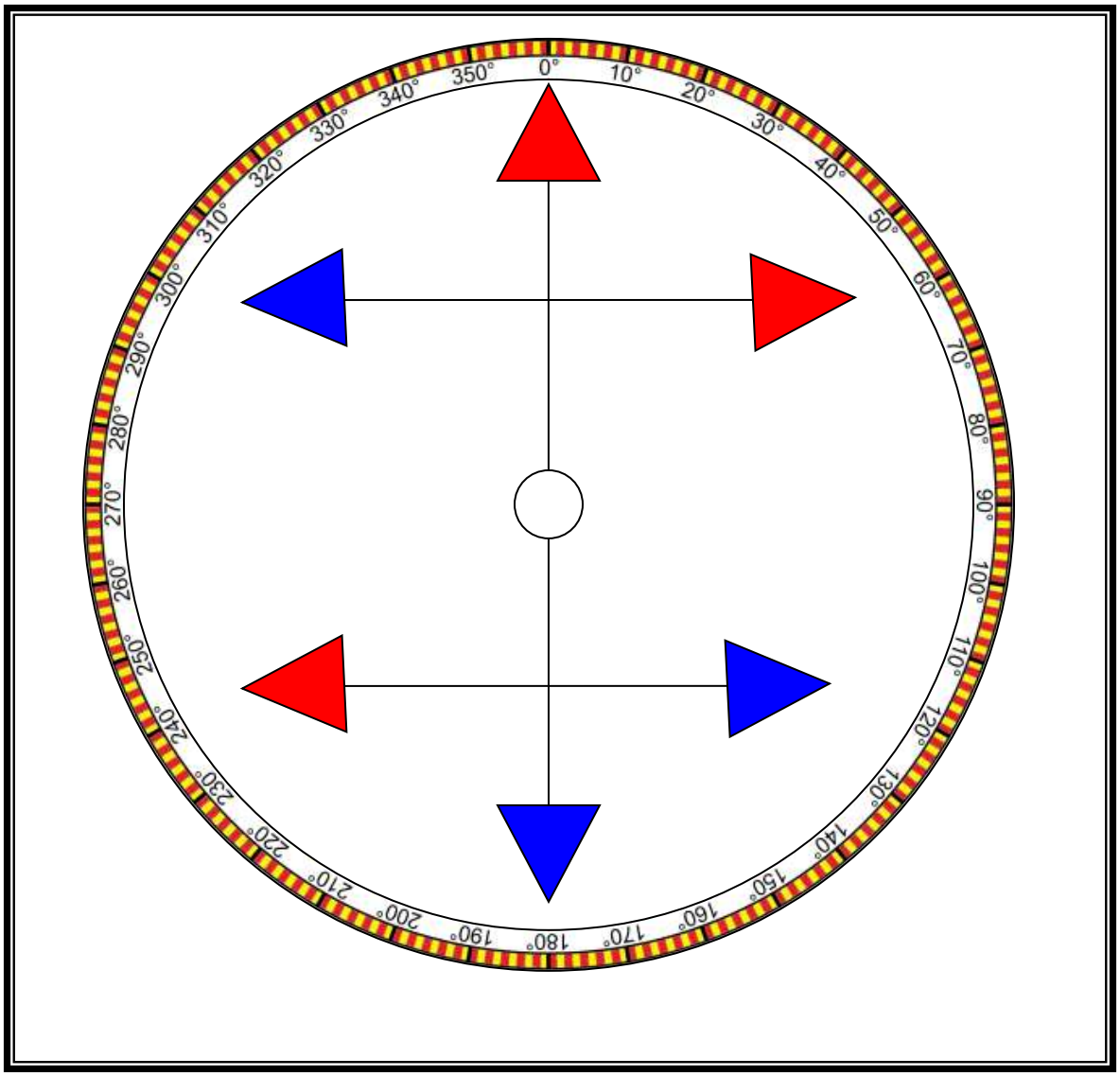


Source: Prepared by the researcher.

Fig. (18) a compass with 5 magnetic heads, "starfish" (3 magnets to the south - 2 to the north).

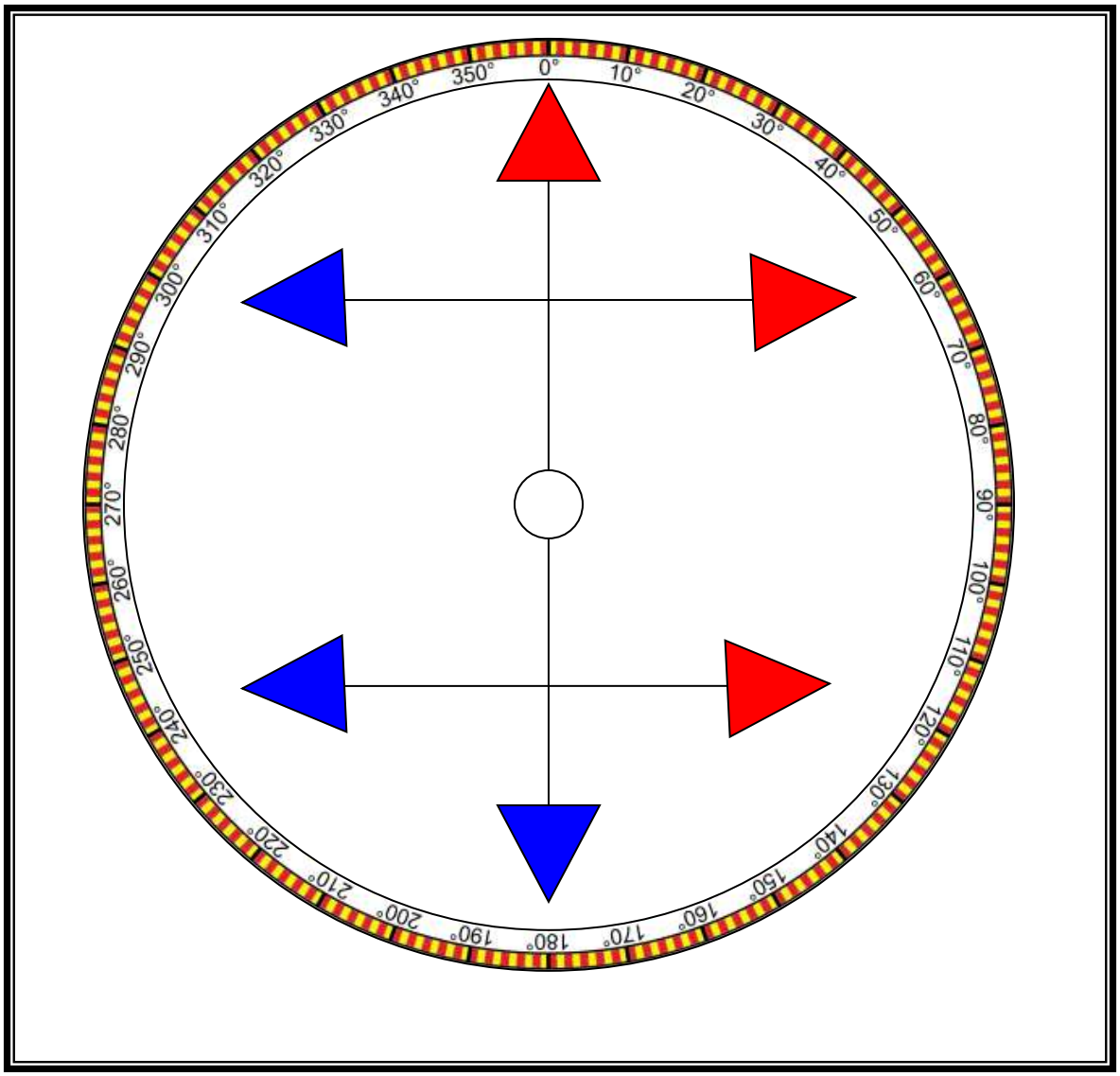
Multiple magnetic heads compass (6 poles).

Here we can put very many shapes, besides the sub-graphs, and rearrange the placement of the magnetic heads on their edges, and only two shapes are sufficient *(Fig. 19-20).*



Source: Prepared by the researcher.

Fig. (19) a compass with 6 magnetic heads (similar to the shape of a wild animal's fur after the skinning process).

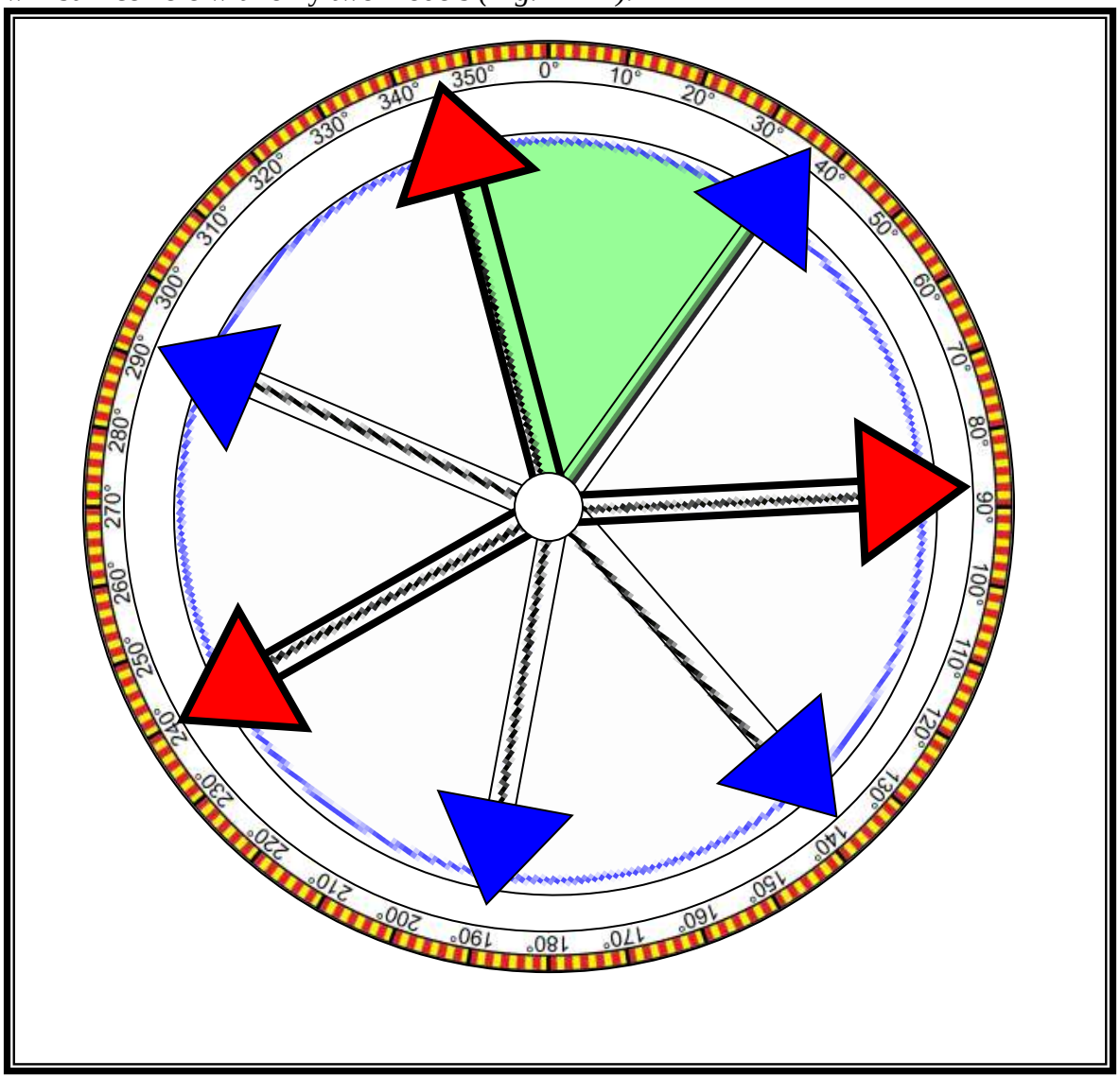


Source: Prepared by the researcher.

Fig. (20) Another branch of the compass with 6 magnetic heads equal in strength and in the number of poles of attraction to the north and south ... ... as if 3 monsters were placed in front of 3 like them to wait for the outcome of the violent conflict ... and it is one of the confusing situations that will impose results Geographical location in the magnetic northern hemisphere from the southern.

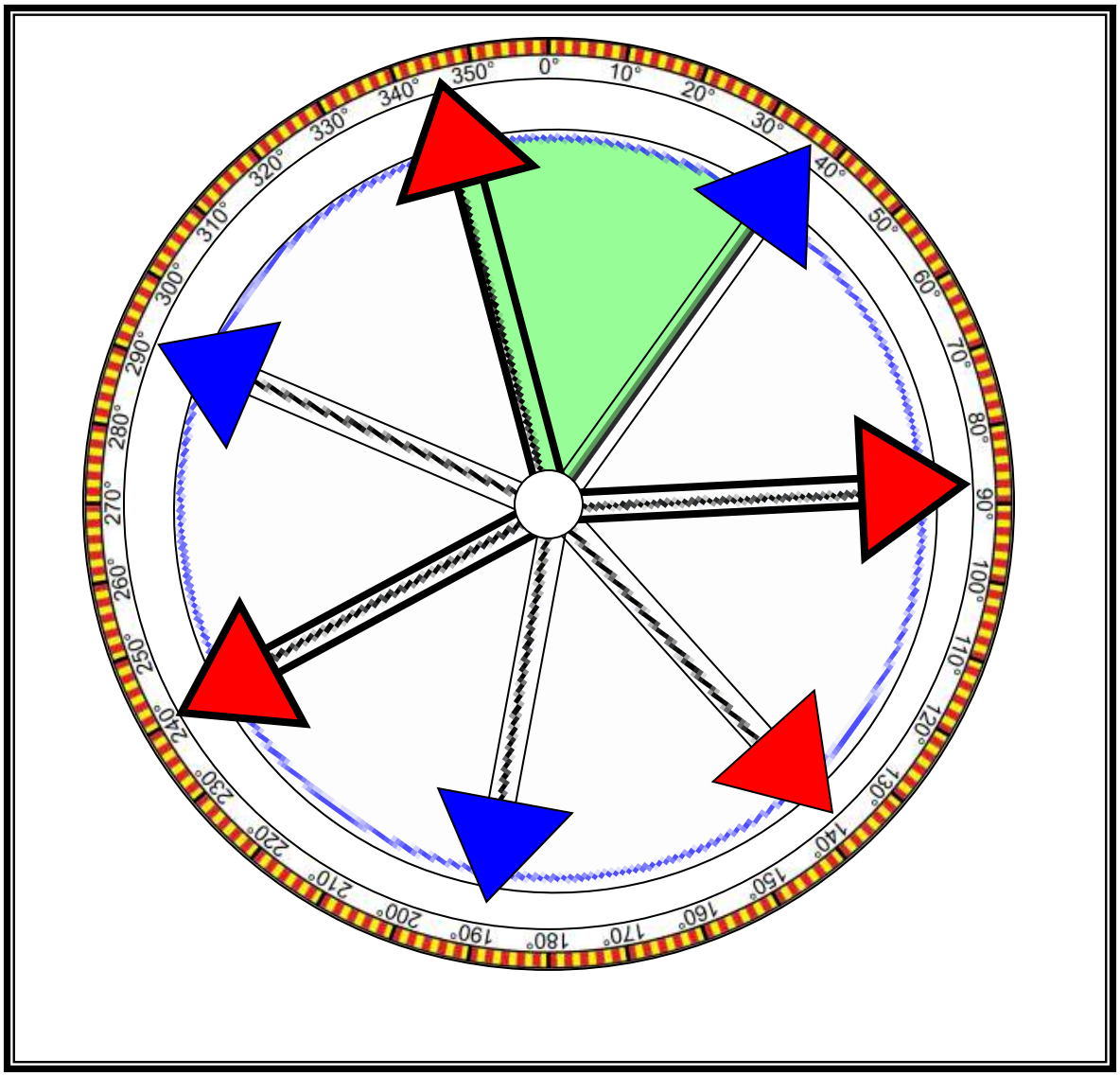
Compass with 7 magnetic heads.

The complexities of the magnetic compass drawings and the arrangement of their magnetic heads are increasing. There are many models that are easy to implement, but we will suffice here with only two models *(Fig. 21-22).*



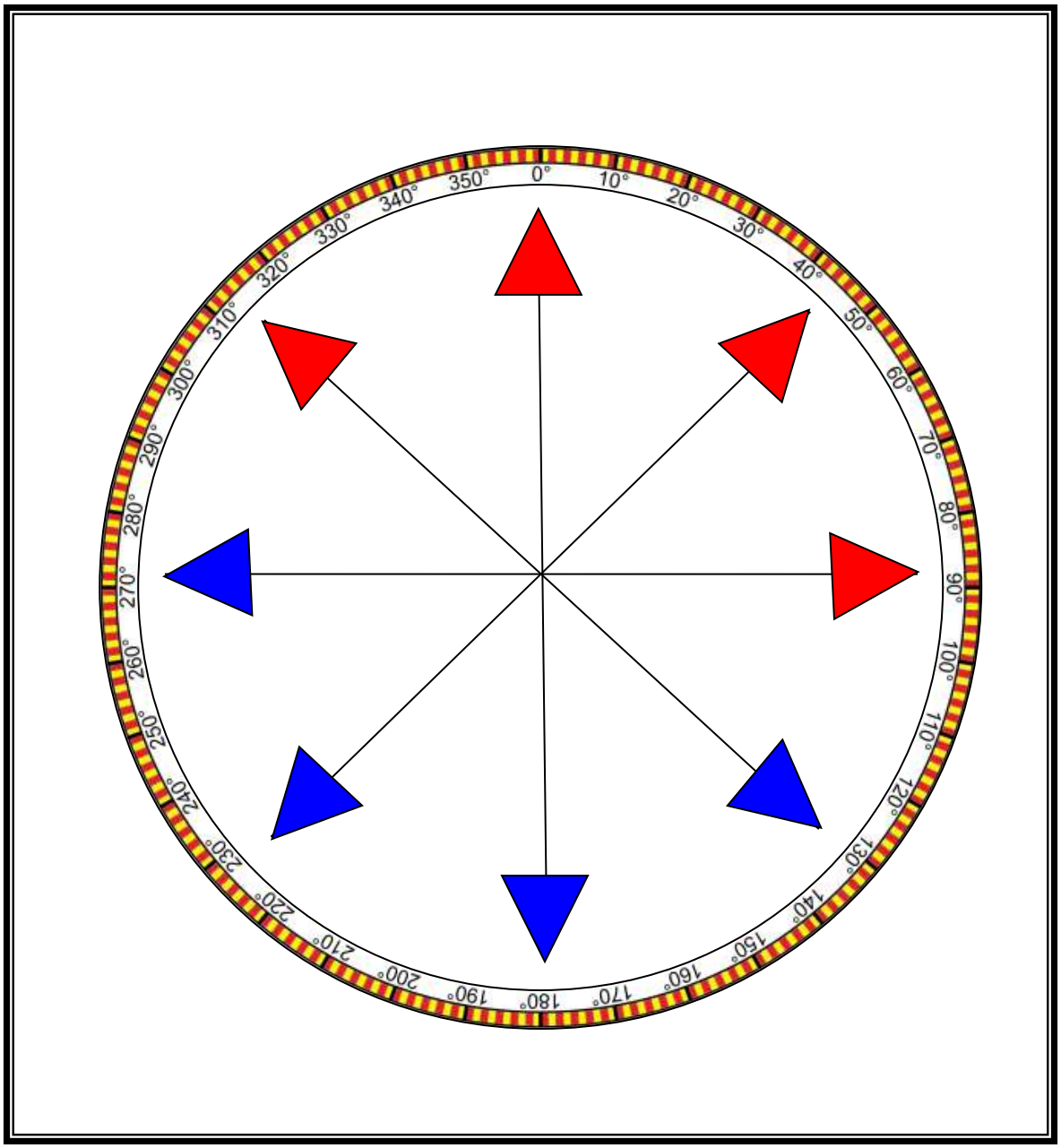
Source: Prepared by the researcher.

Fig. (21) A compass with 7 magnetic poles (3 magnets to the North - 4 attracts to the South).



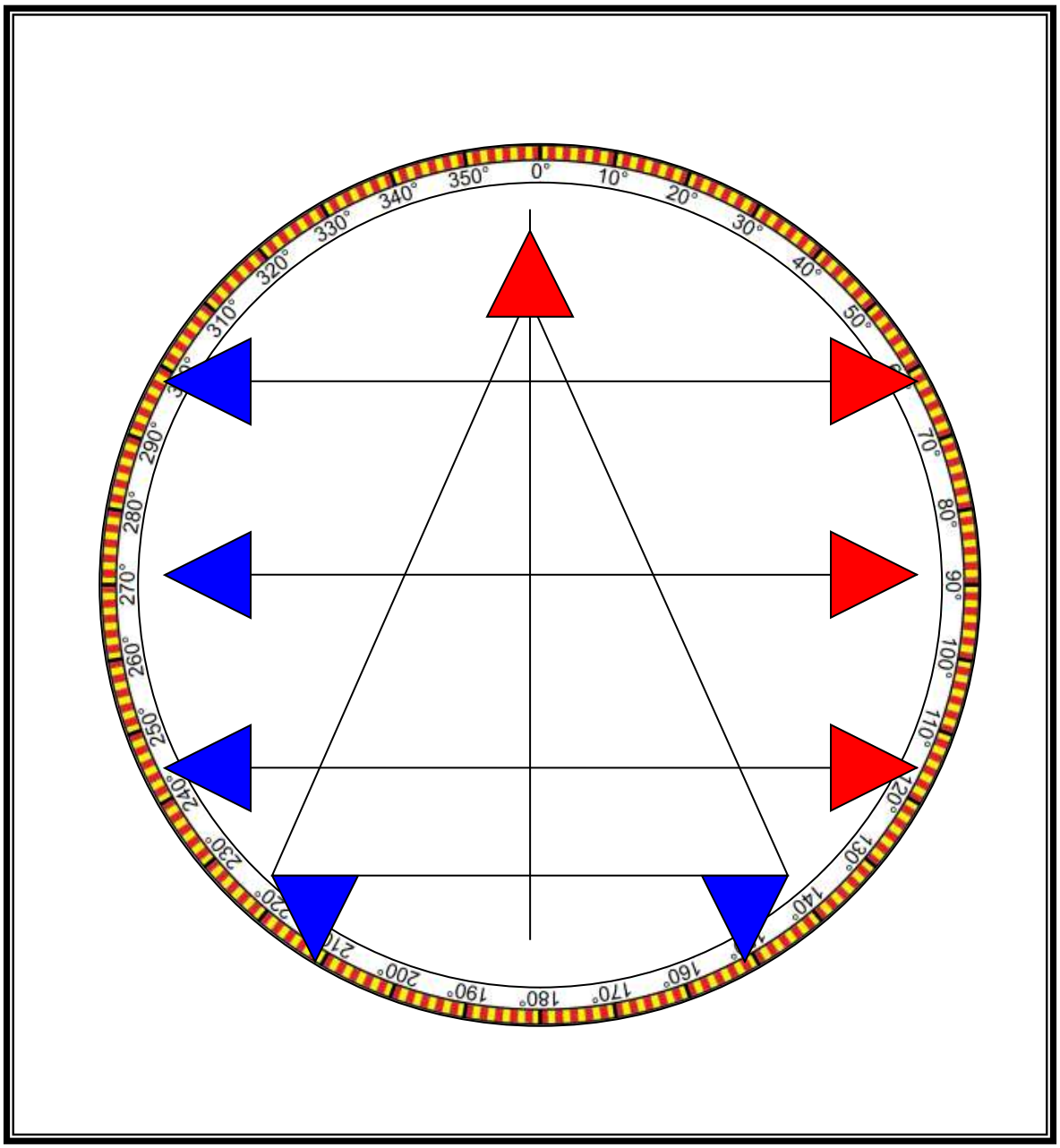
Source: Prepared by the researcher.
Fig. (22) A compass with 7 magnetic poles (4 magnets to the North - 3 to the South).

Compass with 8 magnetic heads.
Even compasses with magnetic heads have a different characteristic from compasses with single poles, in that they give equal opportunities for the magnetic poles to play their role, to provide new readings, *(Fig. 23).*



Source: Prepared by the researcher.
Fig. (23) A compass with 8 magnetic poles (4 magnets North - 4 magnets South).

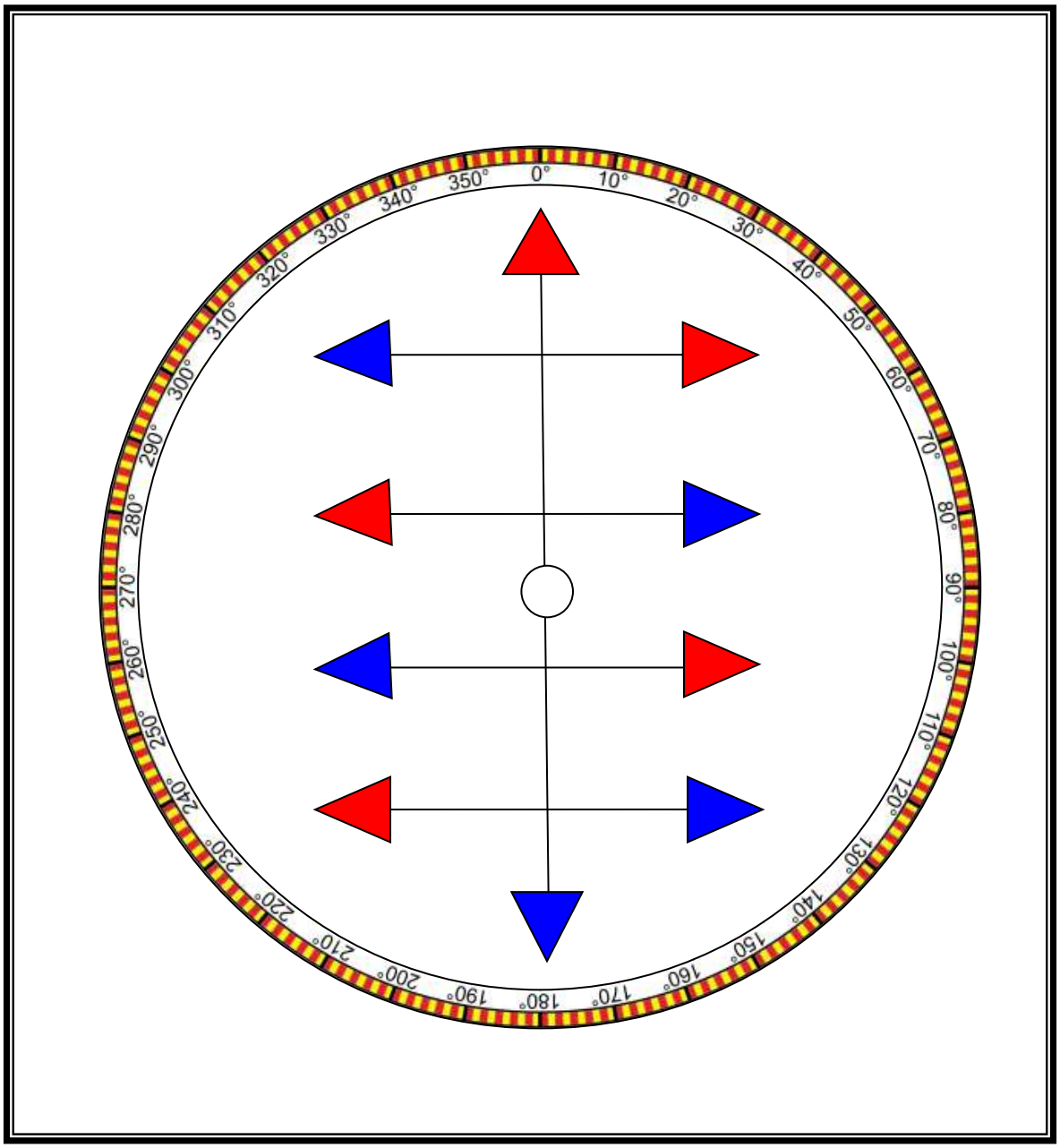
Compass with 9 magnetic heads.
It is a difficult compass to design, and it caused a lot of thinking to put a new board to distribute the nine poles in a new way, to avoid repetition, and to achieve a unique case, and this was possible *(Fig. 24)*, to demonstrate the diversity of possible cases for the success of this innovation.



Source: Prepared by the researcher.
Fig. (24) A compass with 9 magnetic heads of a different shape than the above.

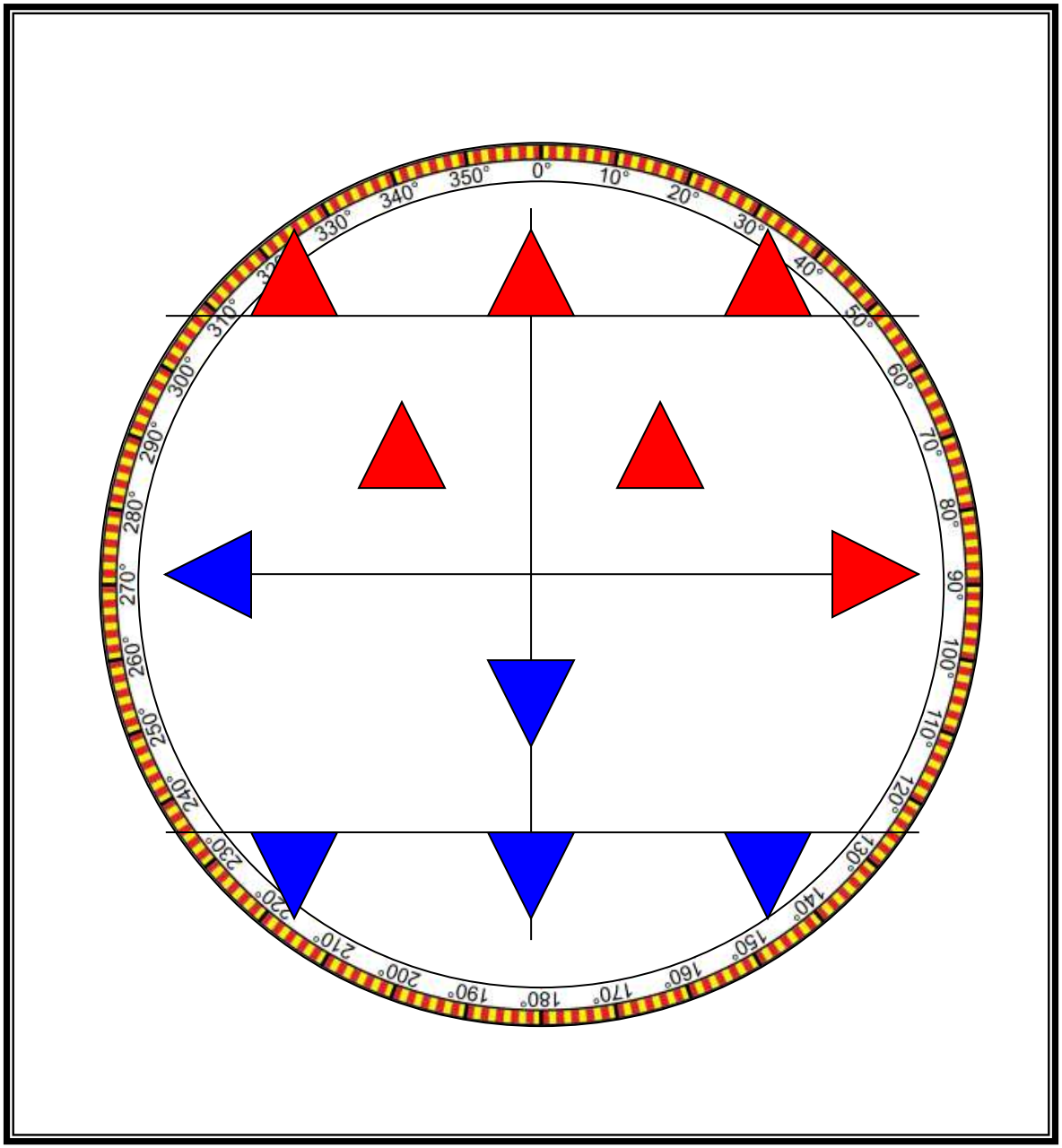
10 poles multi magnetic heads compass

This design is of the easy type to implement, and provides many readings when rearranging the magnetic heads in their different places, (Fig. 25).



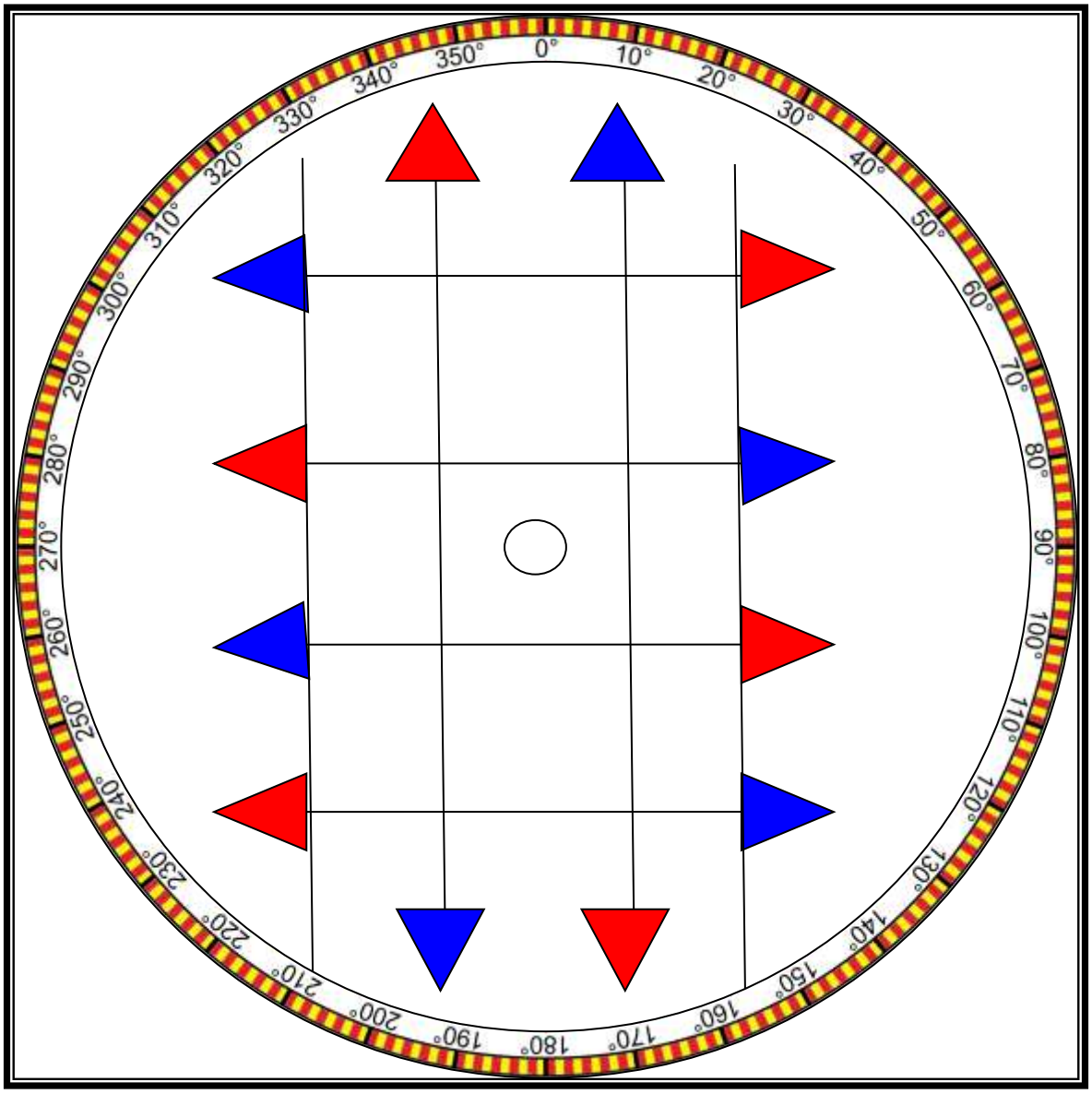
Source: Prepared by the researcher.
Fig. (25) a compass with 10 magnetic heads.

Compass with 11 magnetic tips.
This design is included in the semi-complex drawings, which search for new visualizations to produce different readings from the previous ones, and a simplified prototype was drawn for this, *(Fig. 26).*



Source: Prepared by the researcher.
Fig. (26) compass with 11 magnetic heads.

The compass of multiple magnetic heads with 12 poles, (Fig. 27) (this number was sufficient to prevent the expansion of the research paper area).



Source: Prepared by the researcher.

Fig. (27) A compass with 12 magnetic vertices (compasses of complex puzzling situations), needing a large circle diameter to provide a neutral area of attraction between the magnetic vertices.

Third: Features of the new innovative magnetic compasses. . . (It is divided into: - specific characteristics - tested - out of conception so far).

- **What is the size of the benefit if the advantages exceed the ability to be limited?**

Will the actual benefit be achieved by simply listing the practical advantages of the project? Of course yes, but what is the size of the benefit if the advantages exceed the limitation? We believe that the most important element that has been put forward is the new scientific opening of a road that humans have not dreamed of since the discovery and use of the magnetic compass throughout tens of centuries, about At least a thousand years of steadfastness and intellectual stagnation on the subject of the magnetic compass and its various uses and applications. We believe that the enumeration here is unable to express its final opinion, but we will try to present the most prominent perceptions and characteristics available so far.

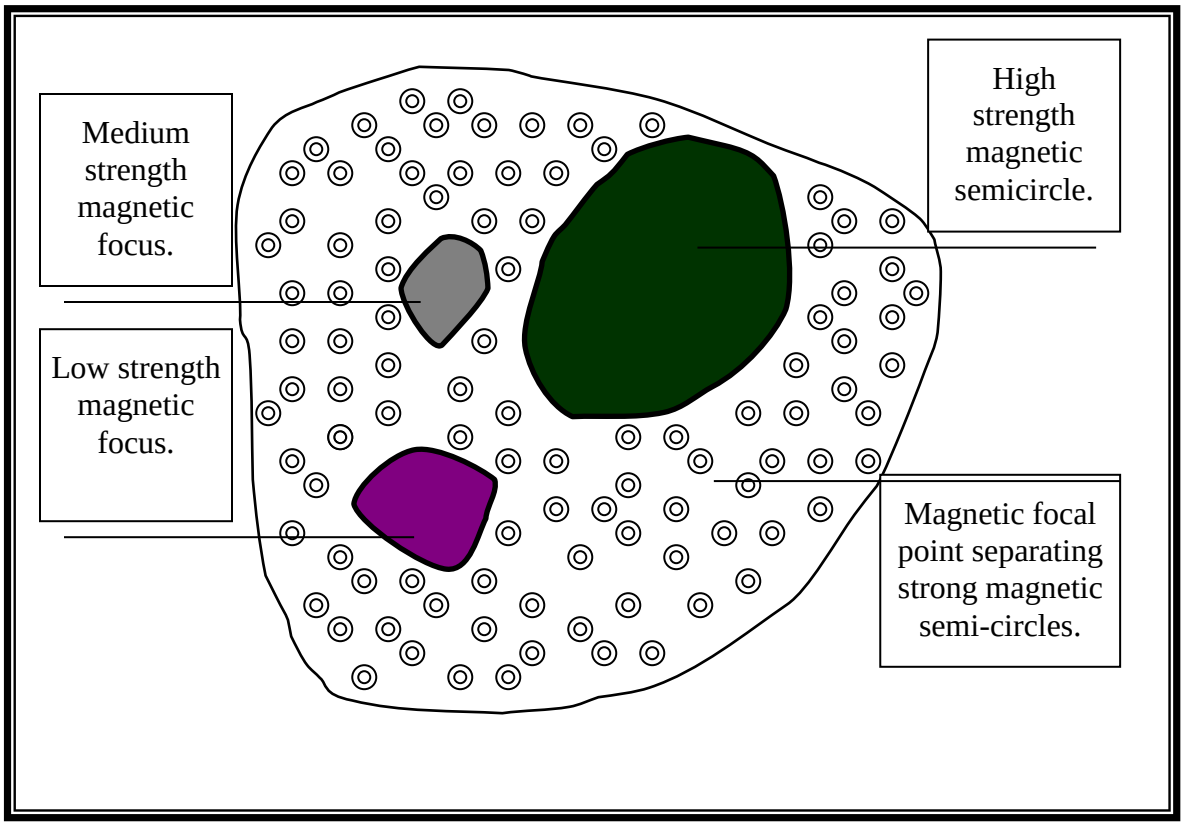
Providing more accurate scientific readings than all previous magnetic compasses.
It will allow an accurate reading of the magnetic compass in the darkest conditions and times of turmoil, and even with the severe vibrations of the compass in the sea, land or air; Because it will provide a collective vote with the participation of many corresponding compasses that provide independent and impartial readings, to be collected and put before everyone, in a way that is similar to diversifying and strengthening information sources, and not relying on one source, no matter how reliable it is.

The discovery of a "Magnetic fingerprint for every geographical point on the surface of the planet".
When slight differences are observed in each reading of all previous compasses, something completely new will appear. There will be many numbers and simple differences between them, for example: - For example, the compass of the letter "**Y**" will give a reading that stops at the number 20, for example, and the angle compass gives a reading of 30, and the other It stops at an angle of 90, then the next 145, and so on; In order for these numbers to be recorded in a large table, we find that this table does not match and differ from place to place, thus achieving a “magnetic fingerprint for every point on the earth’s surface, and it is considered a helpful alternative to the **“Global Positioning System” (GPS).**

Comparing the "magnetic footprint" of the same place due to the shifting of the north and south magnetic poles to discover natural resources that have a great relationship with magnetism, including iron, nickel and chromium.
Observing the simplest differences that contradict similar readings will lead to scientific conclusions indicating the presence of iron minerals and its likes, the size of the stock of it, the degree of its concentration and purity, for example: If the angle compass gives a reading whose index stops at the number 20, while the same inch gives a reading At number 16 at a point very close to it - and it was supposed to stop at number 17 - this area caused an imbalance in the compass, and it is likely that iron ores are present in the geology of the area.

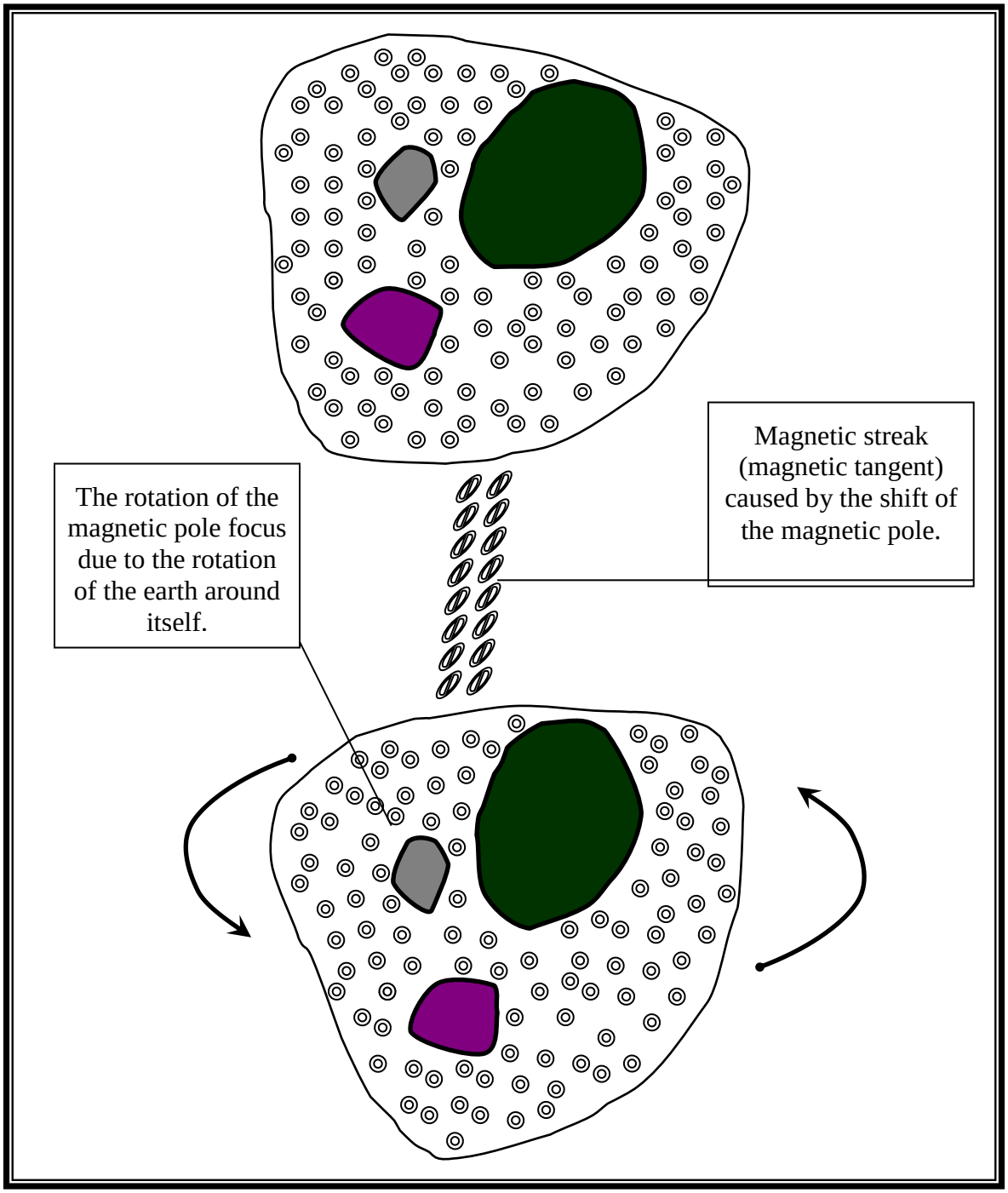
Inference of distortions of magnetic pole foci (especially when used around them).
The magnetic north pole is a point on the earth's surface located in the northern hemisphere of the earth at which the direction of the earth's magnetic field is perpendicular to the bottom, meaning that if the compass is allowed to rotate freely, it will point downwards (*Wikipedia encyclopedia; The magnetic north pole.*[(2)], this is all that science says so far; But these innovative compasses will contribute to the study of the characteristics of the **"Magnetic pole point"** north and south, and to draw up an accurate drawing that was not possible before only using this new scientific tool. This has a significant impact on the various navigational, natural and human aspects on the surface of the planet.

For example: - If these compasses are placed around the north "magnetic pole point", they can determine the strength and weakness in their fabric, their distribution and concentration, so you can draw their shape in detail by comparing them with previous readings at different periods, *(Fig. 28)*, and what happened during Natural budge? Did it leave what might be called a **"Magnetic walking line",** did it move in the same way? Or did it rotate a little? , *(Fig. 29)*.



Source: Prepared by the researcher.

Fig. (28) is an "Imaginary" model of the possibility of observing semi-circles of magnetic force of varying strength between them in the "Magnetic pole" north and south, using the new magnetic compasses (especially the compass to determine the eastern end and the compass to determine the western end of the magnetic pole point).



Source: Prepared by the researcher.

Fig. (29) "An imaginary model" of the movement of the heads of the "North Magnetic Pole" during the slow periodic movement of the magnetic pole, where you imagine a circular motion with the movement of the Earth's rotation around its axis.

Detection, identification and tracking of multiple magnetic poles (On other planets).
There are only two magnetic poles on Earth (North and South) so far - we don't know what will happen in the future! -, but these new compasses can determine the presence of many magnetic poles of unlimited number, which the ordinary compass will not be able to monitor, by testing them on the surface of the target planet, as well as in its surrounding atmosphere subject to the influence of its magnetic gravity; So you can draw the areas of their distribution, the intensity of their power, and the dominance of some of them more than others.

CONCLUSION

What is the total number of compasses found in this research? We believe that these drawings can multiply a lot when rearranging the magnetic heads in a new way, making the total number of connections able to reach hundreds, and even thousands of magnetic compasses with their many complex branches, even those that have not been proven its importance in monitoring a new geometric reading; It is possible that its usefulness will increase in scientific applications in the outer space of the planet Earth.

When we set out to think critically, search for new implications for the magnetic compass, and conduct scientific consultations to help activate the idea; We found a storm of astonishment that remained standing, motionless, except with a tendency for little admiration, which is followed by nothing but silence and complete silence, with the least encouragement or approval of the idea, as if everyone wanted to say: **“Walk with your imagination alone, we are not with you.”** Was the journey successful on the road? Victory? We believe that the opinion is still early, and a fair judgment will need many scientific contributions to enhance the cause.

What is the fate of the **"Ordinary magnetic compass"** (former)? , will turn into a simple tool, intended for children and naive people, while the **"New innovative compasses**" will turn into an ambitious science with a great appetite to provide very many services and solutions in the geographical, geological, military and other fields.
In mathematical concepts, there is a large set of terms that have been developed to solve many arithmetic problems and enable access to the truth in complex ways, including **" Sine, Cosine, Tan"**, and many others. Research on its applications.
We believe that the most dangerous thing this research has done is to rush into the unknown, to revolutionize the tools and machines that we have been granted holiness, because we did not put them on the development table. It will be followed by many more crazy and foolish experiments, and more results will come out that will benefit the scientific field and various human activities.

References

[1] - Wikipedia encyclopedia; Compass.

[2] - Wikipedia encyclopedia; The magnetic north pole.