**Epistle of Petrus Peregrinus of Maricourt : to Sygerus of Foncaucourt/ soldier/ concerning the magnet.**

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PEREGRINUS

Rubricated by the translator's daughter, Helen G. Thompson (see colophon)

PETER PEREGRINUS





Epiſtle of Peter Peregrinus of Maricourt/
to Sygerus of Foncaucourt/ Soldier/ con-
cerning the Magnet.

Beginneth the Treatiſe of the Magnet.
Chapter i. Of the ſcope of the Work.

After being ſolicited by you/ inmoſt of friends/ I will diſcloſe in rude narration a certain occult nature of the lodeſtone. For indeed nothing has been pleaſurable to Philoſophers apart from the ſharing of the knowledge of it/ becauſe the nature of good things wanders and is obſcured in darkneſs until it is brought up into the beams of public dedication. ☞ This treatiſe is of the magnet and contains two parts of which the firſt is in ten chapters. ☞ The ſecond part is compriſed in three chapters. ☞ The firſt chapter of the firſt part is on the ſcope of the Work. ☞ The ſecond chapter/ What an inveſtigator in this ſubject ought to be. ☞ The third chapter on the recognizing of the ſtone. ☞ The fourth chapter on the ſcience of finding the parts of the ſtone. ☞ The fifth chapter on the finding of the poles in the ſtone/ Which of them is the North and Which is the South. ☞ The ſixth chapter how one magnet

 attracts

attracts another magnet. ℗ The seventh chapter how iron drawn by a magnet turns towards the poles of the World. ℗ The eighth chapter how a magnet draws iron. ℗ The ninth chapter how the Northern part attracts the Southern/ and conversely. ℗ The tenth chapter on the inquiry Whence a magnet receives the essential Virtue/ Which it possesses. ℗ Of the second part the first chapter is on the construction of an instrument by Which is known the Azimuth of the Sun and of the Moon and of any star on the horizon. ℗ The second chapter on the construction of another better instrument for the same purpose. ℗ The third chapter about the theory of the construction of a Wheel of perpetual motion.

FOr love of you therefore I will write down in plain language things which to the bulk of students are utterly unknown. Nevertheless We shall not communicate in this epistle any information save about the manifest properties of the stone/ on the ground that this teaching will form part of a Tract/ in Which We shall show how to construct physical instruments. To treat of the occult properties of this stone leads us to the art of engraving stones. And although I may call those

actions

actions manifeſt/ concerning Which you haſe inquired/ yet they Will be of no eſteem/ and in the eyes of the Vulgar as illuſions and phantaſms. And therefore becauſe they are ſecrets to the common people/ but Will be manifeſt to Aſtrologers and Naturaliſts/ they Will alſo be a ſolace to them/ juſt as they Will likeWiſe be of no ſlight aſſiſtance to traſellers Who haſe gone far aWay.

Chapter ij. What an inſeſtigator in this ſubject ought to be.

BOt knoW/ dearest friend/ that the inſeſtigator in this ſubject muſt underſtand nature/ nor muſt he be ignorant of the celeſtial motions: but he muſt himſelf be very diligent in handicraft alſo/ in order that through the operation of this ſtone he may ſhoW Wonderful effects. ℙ For by his carefulneſs he Will be able in a ſhort time to correct an error Which in an age he could not poſſibly do by means of his knoWledge of nature and mathematics/ if he lacked carefulneſs in uſe of hands. For in occult operations We ſearch out much by manual induſtry: and for the moſt part Without it We can make nothing perfect or complete. ℙ For there

there are many things subject to the empire of reason/ Which things We cannot completely investigate by the hand. From these therefore it is clear What the qualifications of an investigator of this subject ought to be.

## Chapter iij. Of the recognizing of the Stone.

NOW this stone is to be recognized by four distinguishing characteristics/ namely/ colour/ homogeneity/ Weight/ and Virtue. It should they be of an iron colour and livid/ mingled With indigo or sky-blue/ so that it is like unto polished iron tarnished by foul air: for such a stone I have never seen Without great power. And such stone is found as a rule in Northern parts/ and is reported by sailors in all the ports of the Northern seas/ as for example in Normandy/ Picardy/ and Flanders. ℗ This stone should also be homogenic in substance/ since that Which has rusty spots/ and small holes/ is not choice: and a magnet is scarce found Without such defects. ℗ Such a stone also/ on account of its homogeneity/ and the good compacting of its subtile parts/ is rendered heavier/ and is deemed Weightier in price. ℗ But its Virtue is discerned through

through the strong attraction of iron/ and of a great Weight/ of the manner of Which attraction I Will speak lower down. If therefore you shall find a stone With these marks/ get hold of it if you can. It therefore appears by What marks the recognizing of this stone is elicited.

## Chapter 16. Of the Science of finding the parts of the stone.

SO you must know that this stone bears in itself the similitude of the heavens/ the method of proving Which I Will explain clearly how to find/ lower down. And on this Wise: that there are two points in the heavens more noteWorthy than the rest/ because the celestial sphere turns about them as upon axes: One of these is named the Arctic or North pole/ Whilst the remaining one is named the Antarctic or Southern. So in this stone you should thoroughly comprehend there are two points of Which one is called the North, the remaining one the South. To the general discovery of these two points you may attain by manifold industry: And one Way is/ To have this stone rounded With a tool With Which crystals

ſtals and other ſtones are rounded. Afterwards let a Needle/ or a bar of iron/ ſlender after the faſhion of a needle/ be placed over the ſtone/ and along the length of the iron let a line be marked out dividing the ſtone along the middle: Afterwards let the needle or the iron be placed in another poſition over the ſtone/ and mark the ſtone with a line again in the ſame way according to that poſition: And if you wiſh/ you ſhall do this in ſeveral places or poſitions/ and without doubt all the lines of this kind will meet in two points/ juſt as all the meridian circles of the world meet in the two oppoſite poles of the world. Know you then that one is the North/ the other the South: the proof of which you will ſee in the following Chapter. ☞ But there is another better method of diſcovery of thoſe points: that you may obſerve the place on a rounded ſtone/ as has been ſaid/ where the end of the needle or of the iron adheres more frequently or more ſtrongly: for this place will be one of the points found by the method already deſcribed. ☞ In order therefore that you may have one point on the ſtone exactly/ break off a little piece from the needle or the iron/ which ſhall be in the ſhape of a bar of about the thickneſs of two fingers/ and place it on the ſpot

where

Where the point has been already discovered by the said method/ and if it stand upright on the stone/ Without doubt the point sought for is there. If not/ move it until it does stand upright. Which being done/ mark the point there/ and in a similar manner on the opposite side of the stone/ you Will find the opposite point. And if you have done this correctly/ and the stone is homogenic and choice/ the points Will be directly opposite/ as the Poles on a sphere.

## Chapter 6. Of the science of Finding the Poles in the stone: Which of them is the North/ and Which the South.

HAving observed the art of finding the Poles of this stone in general/ you Will ascertain Which of them is the North and Which the South by means of the following method: Take a round Wooden vessel/ in the shape of a cup or dish/ and in it place the stone/ in such a Way namely that the two points of the stone are equidistant from the edge of the vessel: then place that vessel/ With the stone placed Within it/ in another vessel/ a large one/ filled With Water/ so that the stone may be in the

first vessel like a sailor in a ship. But let the first vessel be in the second vessel with plenty of room/ like a ship floating in a river. And/ I say/ with plenty of room/ in order that the natural motion of the stone may not be impeded by its contact with the edge of the large vessel. For this stone/ so placed/ will turn its small vessel/ until the North pole stands in the direction of the Northern point of the sky/ and the South pole in the direction of the Southern point. And if this stone be moved aside a thousand times/ a thousand times will it return to its place or position by direction of God. And when the Northern and Southern parts are known in the heavens/ those in the stone will be known also by means of them: because each part of the stone will be in the direction of its own part of the heavens.

## Chapter vi. How Magnet draws Magnet.

The discovery then having been made which is the North and which the South Pole in the stone/ mark the Poles with incisions/ so that you may be able to distinguish them as often as you need. And if afterwards you wish to see how stone

attracts

attracts ſtone: Get ready in the following manner two ſtones/ prepared as has been ſaid. Place one in its veſſel/ ſo that it may float/ like a ſailor in his ſhip/ and let the points already found be equi-diſtant from the Horizon/ or from the edge of the veſſel/ Which is the ſame thing: but hold the other ſtone in your hand. And bring the Northern part of the ſtone Which you are holding near to the Southern part of the ſtone floating in the veſſel: for the floating ſtone Will then follow the ſtone Which you are holding/ as if Wiſhing to adhere to it: And if/ converſely/ you preſent the Southern part of the ſtone/ Which you hold/ toWard the Northern part of the floating ſtone/ the ſame thing Will happen: namely/ the floating ſtone followS the ſtone Which you are holding. KnoW you then as the rule/ that the Northern part in a ſtone attracts the Southern part in another ſtone/ and the Southern the Northern. But if you do the oppoſite/ namely/ bring the Northern part near the Northern/ the ſtone Which you are carrying in your hand Will ſeem to repel the floating ſtone/ and if you apply the Southern part to the Southern/ the ſame Will happen: and in fact for this reaſon/ that the Northern part ſeeks the Southern: Wherefore it Will ſeem to repel the Northern: of Which there

is a token in the fact that the Northern part Will in the end join itself to the Southern. ¶ But conterſely a correſponding reſult takes place in reſpect to the other part/ the Southern: becauſe if it is held out towards the Southern part of the ſtone that is floating/ you Will ſee it repel it immediately. The ſame occurs/ as has been ſaid/ in the caſe of the Northern part preſented to the Northern. ¶ And it is to be knoWn that thus North ſeeks South/ and ſo South ſeeks North. And by this is oWerthroWn the folly of certain/ Who ſay that if Scammony attract jaundice by reaſon of ſimilitude/ they Will a magnet attract a magnet more than iron: Which they ſuppoſe falſe When it is true/ as appears by experiment.

Chapter Vij. HoW Iron touched With a Magnet turns to the Poles of the Earth.

AS is knoWn to all Who haue tried it/ When an oblong piece of iron has touched a magnet/ and has been faſtened to a light piece of Wood or a ſtraW/ and is put on Water/ one part Will moue toWard the ſtar called the Nautical ſtar/ for the reaſon that it is near the pole. For the truth is that it does

not

not more toward the ſaid ſtar/ but toward the pole/ the proof of which we will affirm in its own Chapter: but the other part will more toward the other part of the heavens. But as to which part of the iron moves toward which part of the heavens/ you muſt know that the part of the iron which ſhall have touched the South of the ſtone/ will turn toward the North of the heavens. And the converſe will be the caſe concerning the part of the iron which the North part of the ſtone ſhall have touched/ for indeed it will turn round to the South: And it is a Wonderful thing for one who does not underſtand the cauſe of the motion of the iron: but experience of this has proved that we have ſpoken the truth.

## Chapter viij. How a Magnet attracts Iron.

Should you hold that it is in accordance with a natural appetite of the ſtone that it attracts iron floating or ſwimming on water/ obſerve the Northern part of the iron/ and bring near to it the Southern part of the ſtone/ for it will follow it. Or/ on the contrary/ to the Southern part of the iron hold out the Northern part of the ſtone/ for it will attract

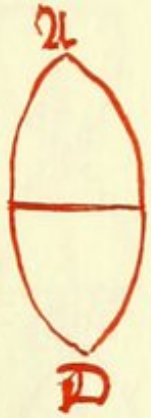
tract it Without reniteney. But if you ſhould do the oppoſite/ namely/ hold out to the Northern part of the iron the North of the ſtone/ it Will be ſeen to repel the iron/ until the Southern part is adjoined to the ſame iron: and ſimilarly you Would perceiſe the ſame thing in regard to the other part. ☞ But if Violence be done to the parts/ namely/ if the Southern part of the iron/ Which has been touched With the Northern part of the ſtone/ Which is alſo called the Southern in the iron/ be joined to the Southern part of the ſtone/ the Virtue in the iron Will be eaſily altered in it/ and that Will become the South Which Was the North/ and conterſely. And the cauſe of this is/ the impreſſion of that Which acted laſt/ confounding and altering the Virtue of the firſt.

Chapter iy. Why the Northern part attracts the Southern/ and conterſely.

But the Northern part of the ſtone attracts the Southern/ and conterſely/ as has been ſaid/ and in its attraction/ the ſtone of ſtronger Virtue is actiſe/ Whilſt that of the Weaker is paſſiſe. But the cauſe of this thing I noW think is indicated in this Way:

The

The agent ſtrives not only to join its patient to itſelf/ but alſo to unite: ſo that out of agent and patient/ there may/ according to nature/ be made one. And this may be ſhown in the caſe of this Wonderful ſtone in this Wiſe: Take one ſtone/ Which you may repreſent by A D/ in Which A is the North/ Whilſt D is the South point. And divide it into two parts/ ſo that two ſtones are made out of it: Afterward put the ſtone/ Which contains A/ on Water/ that it may float/ and you Will ſee that A Will turn toward the North as before. For the breaking does not take away the properties of the parts of the ſtone/ When the ſtone is homogenic. And ſo that part of this ſtone juſt at the break/ Which is AB/ muſt needs be the South. Let this ſtone therefore/ concerning Which We have been ſpeaking juſt now/ be repreſented by AB: concerning the other/ that Which contains D/ if it be put to float on the Water/ you Will ſee that D Will be the South as before/ becauſe it Will turn to the South if put on the Water. But the other part/ Which may be called C/ in the region of the break/ Will be the Northern part. This ſtone then Will be CD. Let the firſt ſtone AB be the agent/ and let CD be the patient: and ſo you ſee that the two parts of the two ſtones/ Which





before

before the ſeparation were continuous in one ſtone/ are found after the ſeparation the one to be a Northern part/ the other a Southern. But if the ſame parts be brought near one another again/ the one attracts the other/ until they are joined together in the point BC where the break had been: Whilſt as far as the natural appetite is concerned/ they will make one body as at firſt/ a ſign of which is that/ if they are cemented there/ they will exerciſe the ſame operations as at firſt.


Therefore the agent/ as you ſee by the experiment/ ſtrives to unite its patient to itſelf/ but this is done by reaſon of the ſimilitude betweeu them. Therefore/ when B is joined to C/ by the virtue of attraction there muſt be one line made of the agent and the patient/ according to this manner ABCD/ ſo that BC becomes one point. For in this union there is retained or preſerved the identity of the extreme parts/ in the likeneſs in which they were at firſt: for A is the North in the united line/ juſt as it was in the divided line. In the ſame manner D/ the Southern point/ as it was in the divided paſſive portion/ ſo it is alſo in the ſame united: but BC is made one and the ſame. In the ſame manner it happens/ if A is joined to D/ that the two lines become one/ by

virtue

virtue of the very union of the attraction/ according to this arrangement CDAB/ so that DA is one point: they the identity of the extreme parts will remain/ just as at first before they were united: for C is a North point: whilst B is a South/ just as it was before while they were separated.

But if it were done otherwise/ this identity or similitude of the parts would not be preserved. For you see that if C be joined to A/ which is contrary to the truth we have discovered/ so that out of those two lines one line is made according to this order/ BACD/ since C is in the point D/ which was the South before they were united/ it is required in this whole line that B/ the other end/ should be the Northern. So/ the former identity or likeness is dissipated. Or if you take B as the Southern/ as it was before they were united/ it is required that D/ the other part/ should be the Northern/ though nevertheless it was the Southern. And so here neither identity nor similitude is preserved. For that/ which has now been converted out of two into one/ must be in the same species as the agent/ which would not be so/ if nature were to choose that impossible arrangement. But the same incongruity will occur if you join D with B/ so that there is made one


 line

line according to this arrangement/ ABDC/ as is plain to him Who considers. ℗ For Nature tends towards being/ or acts in the better Way in Which it can: It chooses first the first order of action or of method in Which the identity is better preserved than in the second. ℗ It is clear therefore from these considerations/ Why the South attracts the North/ and conversely. But South never naturally attracts South/ nor North North.

## Chapter 9. Of the inquiry Whence the Magnet receives the natural Virtue Which it has.

CErtain feeble investigators of Nature however have supposed/ that the Virtue by Which the Magnet acts upon iron exists in the mineral districts/ in Which the Magnet is found/ Whence they say/ that though iron moves toward the Poles of the World/ yet this Would not be so unless a mine of the stone existed in those parts. But they ignore that this said stone is found in diverse parts of the World/ from Which it should follow that it Would move toward diverse parts of the World/ Which is false. And again they ignore that the part under the pole is uninhabitable/ because half the year

ȳear there is day/ and the other half night/ Where=
fore it is fooliſhneſs to ſuppoſe that the Magnet
can be brought to us from thoſe parts. Moreover/
ſince the ſtone or iron turns as much to the
Southern part/ as to the Northern/ as is clear
from What has been ſaid above/ We are right in
deeming that the Virtue in the poles of the ſtone
flows in not only from the Northern part/ but
alſo from the Southern part/ rather than from a
mineral diſtrict. An evident token of Which is/
that Whereſoever man has been/ he ſees that the mo=
tion of this ſtone is to his eye according to the
poſition of the meridian circle. For all meridian
circles meet in the poles of the World/ Wherefore
it is manifeſt/ that it is from the poles of the
World that the poles of the magnet receive their
Virtue. And from this it is manifeſtly apparent/
that it does not move towards the nautical ſtar/
ſince the meridian circles do not meet thereat/ but
in the poles. For the Nautical ſtar is alWays
found outſide the meridian circle of any region
Whatever/ except tWice in one complete revolution
of the firmament. From theſe facts therefore it
is manifeſt/ that it is from the poles of the
heavens that the poles of the magnet receive their
Virtue. ℔ But you may reckon that the remain=

ing parts of the ſtone receiue their influence from the other parts of the heauens: ſo that in this way we may ſuppoſe not only that the poles of the ſtone receiue their influence and virtue from the poles of the world/ but that the whole ſtone does ſo from the whole heauens: which I adviſe you to teſt in the following manner. Let a ſtone be rounded/ and the poles found in it/ and afterwards diſpoſe the ſtone upon two ſharp ſtyles/ ſo that at each pole one ſtyle is gently fixed in its ſocket in the ſtone/ ſo that in fact the ſtone may moue on them without difficulty. Which being done/ try whether the poles or parts of the ſtone are euenly balanced/ by turning it gently about the ſaid poles: and this you ſhall do many times/ and at many different hours of the day with wiſe induſtry. That being done/ arrange the ſtone on the meridian circle/ on its piuots/ fixed lightly in the poles of the ſtone/ that it may moue in the manner of Armillaries/ in ſuch wiſe that the elevation or depreſſion of its poles may be in accordance with the elevation and depreſſion of the poles of the heauens in the region in which you are. Now if the ſtone then moue according to the motion of the heauens/ rejoice that you haue arriued at a ſecret marvel. But if not/ let it be

aſcribed

aſcribed rather to your own Want of ſkill than to a defect of Nature. But in this poſition/ or mode of placing/ I deem the Virtues of this ſtone to be properly conſerved/ and I believe that in other poſitions or parts of the ſky its Virtue is dulled/ rather than preſerved. By means of this Inſtrument at all events you will be relieved from every kind of clock/ for by it you will be able to know the Aſcendant at whatever hour you wiſh/ and all the other diſpoſitions of the heavens which Aſtrologers ſeek after.

Beginneth

Beginneth the Second Part of this Treatise/ of which the First Chapter is of the Construction of an instrument by which is known the Azimuth of the Sun/ and of the Moon/ and of any Star on the Horizon.

THe natural operations of the Magnet having been viewed/ let us pass on to the ingenious contrivances which depend on a knowledge of its natural Working. Let then a round magnet be taken and its poles found/ as has been described/ and let it be filed down between the two poles on the two sides/ so that the stone may be like a sphere compressed between the two poles/ in order that it may occupy a smaller space. Let this stone indeed thus prepared/ be shut up in the middle between two capsules in the manner of a mirror: And let the capsules be so joined to one another/ that they shall not be opened any more and that no Water can make its Way in. Let the capsules be prepared with cement suitable for this purpose/ and let the capsules be of light Wood. This being done/ place the capsules thus fitted up in a large Vessel/ filled with Water/ in which the two parts of the World/ namely/ the South and the North/ have been found

found and knowȝ or marked: and let themȝ be indicated bȝ means of a thread ſtretched from the Northernȝ part of the veſſel to the Southernȝ part. Then ſet the capſules to float/ and let there be a thiȝ ſtrip of Wood oⱱer themȝ in the poſitioȝ of a diameter. Let this ſtrip of Wood be moⱱed oⱱer the boxes/ until it is equidiſtant from the meridian line/ prebiouſlȝ found and indicated bȝ means of the thread/ or is in the ſame line With it. Which being done/ according to the poſitioȝ of this Wood ſo ſituated or marked/ mark the line oȝ the capſules: and it Will be alWaȝs the meridian line in eⱱerȝ regioȝ or kingdom. Let this line thenȝ be diⱱided through the middle bȝ another line cutting the ſame at right angles/ and that ſhall be the line of Eaſt and Weſt: and ſo ȝou Will haⱱe the four quarters actuallȝ marked oȝ the boxes/ denoting the four parts of the World. Each of theſe ſhould be diⱱided intȝ 90 parts/ ſo that there maȝ be in all 360 parts in the Whole circumference of the boxes. And engraⱱe the parts upoȝ it/ juſt as theȝ are Wont to be engraⱱed oȝ the back of anȝ Aſtrolabe. There ſhall be moreⱱer a narroW light bar oⱱer the capſules thus engraⱱed/ like the rule at the back of anȝ Aſtrolabe: Inȝ place hoWeⱱer of the ſights/ let tWo ſpikes be ſet upright oȝ

the

the ends of the rule. ☞ If then you wish to have the Azimuth of the sun/ by day/ place the capsules in Water/ and permit them to move freely/ until they settle in their proper position. And hold them firmly so With one hand/ and With the other move the rule/ until the shadow of the spike falls along


its length/ and then the end of the rule on the side of the sun Will show the sun's Azimuth. If there is a Wind/ let the holes be covered over With some vessel/ until they have found their position. At night/ on the other hand/ you may do the same With the Moon and Stars by sight: for you shall move the rule/ until the tops of the spikes

ſpikes and the Moon or the Star are in the ſame line. For the end of the rule on the ſide of the Star or Moon will indicate its Azimuth/ as formerly. Moreover by means of the Azimuth you will aſcertain fully the hours/ and the Aſcendant/ and all the things which are neceſſary/ according to the ſcience of the Aſtrolabe. But the form of this inſtrument is ſhown by the preſent figure.

## Chapter ij. Conſtruction of another better and more certain Inſtrument/ for the ſame purpoſe.

In this chapter We will tell you the method of conſtruction of another better and more certain Inſtrument. Let a veſſel be made of Wood/ or braſs/ or of any ſolid material/ and let it be formed or turned in the faſhion of a boy/ not very deep/ and let it be Wide enough. And let there be fitted over it a lid of tranſparent material/ ſuch as glaſs or cryſtal. And if even the Whole veſſel is alſo of a tranſparent material/ it Will be the better. So let there be arranged in the middle of the veſſel itſelf a ſlender Axis of braſs/ or of ſilver/ fitting at its extremities to the two parts of the box/ namely the upper and the lower.

## Chapter iij. Of the Construction of a certain Wheel Which Will move continually and perpetually.

IN this chapter I Will reveal to you the Way of constructing a continually moving Wheel/ elaborated With marvellous ingenuity/ in the pursuit of Which invention I have seen many people Wandering about/ and Wearied With manifold toil. For they did not observe that they could arrive at the mastery of this by means of the Virtue/ or power of this stone. ☞ For the construction of this Wheel/ you shall prepare a silver case/ like the case of a mirror/ hollowed out/ Worked within With skilful Workmanship/ With carvings and perforations/ Which you shall make for the mere sake of beauty/ and of lightening the Weight: for the lighter it shall be the more swiftly Will it move. You shall however make the perforations so/ that the eye of the ignorant may not perceive inside the cases/ What is cunningly put therein. But inside let there be small claws or teeth of iron/ of one Weight/ fixed to the edge/ sloping/ near to one another/ so that they be not distant from one another more than the breadth of a bean or the thickness

thickneſs of a pea. But let the ſaid Wheel be uniform in the Weight of its parts. And they fix an axis through its middle/ about Which the Wheel may revolve/ the axis remaining quite immovable. To this axis alſo let a ſmall ſilver bar be added/ fixed to it/ ſituated betWeen the tWo caſes/ at the end of Which let a Magnet be ſet/ prepared in this manner. Let it be rounded and its poles found/ as has been ſaid. AfterWard let it be faſhioned in the ſhape of an egg/ Without touching the poles/ and let it be thinned doWn a little on tWo oppoſite ſides betWeen the poles/ ſo that it may be flattened in ſhape/ in order that it may occupy leſs room/ ſo that it may not touch the ſides of the caſe on the inſide/ in the motion of the Wheel. And having been ſo faſhioned/ let it be placed on the ſmall bar/ like a ſtone in a ring/ and let the North pole be a little inclined toWard the teeth of the Wheel/ ſo that its Virtue may floW into the iron teeth not along a diameter/ but With ſome inclination: ſo that When any tooth ſhall have come to the North pole/ and ſhall have paſſed a little beyond the ſame in conſequence of the impetus of the Wheel/ it may approach the Southern part/ Which Will repel rather than attract it/ as is clear from the rule propounded above. And ſo each tooth Will move

continually

continually in a perpetual state of attraction. ¶ And in order that the Wheel may fulfil its part the more swiftly, shut up between the cases a little round head of brass or silver, of such a size as may be contained between any two teeth: so that when the Wheel is raised, the head will fall


on the opposite side. Wherefore when the motion of the Wheel is continuous toward one side, the fall of the head also will likewise be continuous toward the opposite side, being received between each pair of teeth of the Wheel perpetually: and seeking by its weight the centre of the Wheel or of the Earth, it will prove an assistance, and will not

not let the teeth rest in a direct line With the stone. But let the spaces betWeen the teeth be conVenient-ly recessed/ so that they may be able to hold the head properly in the direction of its fall/ as the present description shoWs. P Fare Well.

Finished in camp/ at the siege of Lucera/ in the year of our Lord 1269/ on the 8th day of August. Endeth this Treatise.

This Epistle of Peter Peregrinus/ On the Mag-net/ Written in 1269/ is done into English by Silvanus P. Thompson from the printed Latin Versions of Gasser 1558/ Gerelli 1868/ and Hellmann 1898/ and amended by reference to the manuscript copy in his possession/ formerly amongst the Phillipps Manuscripts/ dated 1391: and it is noW printed in the year 1902/ in the Caxton type/ by Charles Whittingham and Company/ at the Chiswick Press/ to the number of 240 copies/ of Which this is No.???. Rubricated by H.G.W.