Q.U.A.C. – R.A.S.C.-K.C.

WED. April 6

Well folks, here it is.
The results of our elections on Tuesday March 29 1977

Our new president is Leo Enright, Box 196,Sharbot lake.

Our new vice-president is Douglas Baker, Thats Me!
497 princess st.

Our secretary-treasurer is still that old reliable Sue Mcdougall

It was decided to borrow the telescope offered to us by the National centre until we manage to make our own. The building of the telescope was discussed and the telescope committee decided to meet the following work to make a final decision.

On ~~tes~~ Tuesday April 5 the telescope committee got together at Paul Browns apt. We decided upon buying a 6 inch mirror offered to us that is partially ground. This will cost us a mere $10.00 or so. We intend to get a tube for it suitable for an 8 inch mirror. This will enable us, in the future, to get and grind an 8 inch mirror and use it in the same telescope without much alteration to it.
For a mount we intent to use a split horseshoe type shown in a recent edition of Sky and Telescope (about November,76) This should be quite stable,low to the ground,and easy to build. It will be portable until we can find a site for it.

By now we all realize that summer is on the way. Ha Ha! However we should start planning summer meetings. After all in the summer we don't need contests on how cold it was observing. We need them on the number of times we get bitten by mosquito's. At the April 5 meeting we dcided to hold several special picnics. As yet the dates and plans are approximate. Here is a general rundown.

Weekend of the 27 of May; picnic in the Holleford crater.

Late June-early July;Picnic and water skiing expedition to Sharbot lake.

August; A 45 th parrallel picnic(guess where).

Additional information will be given in the next newsletter. This should be in early may.

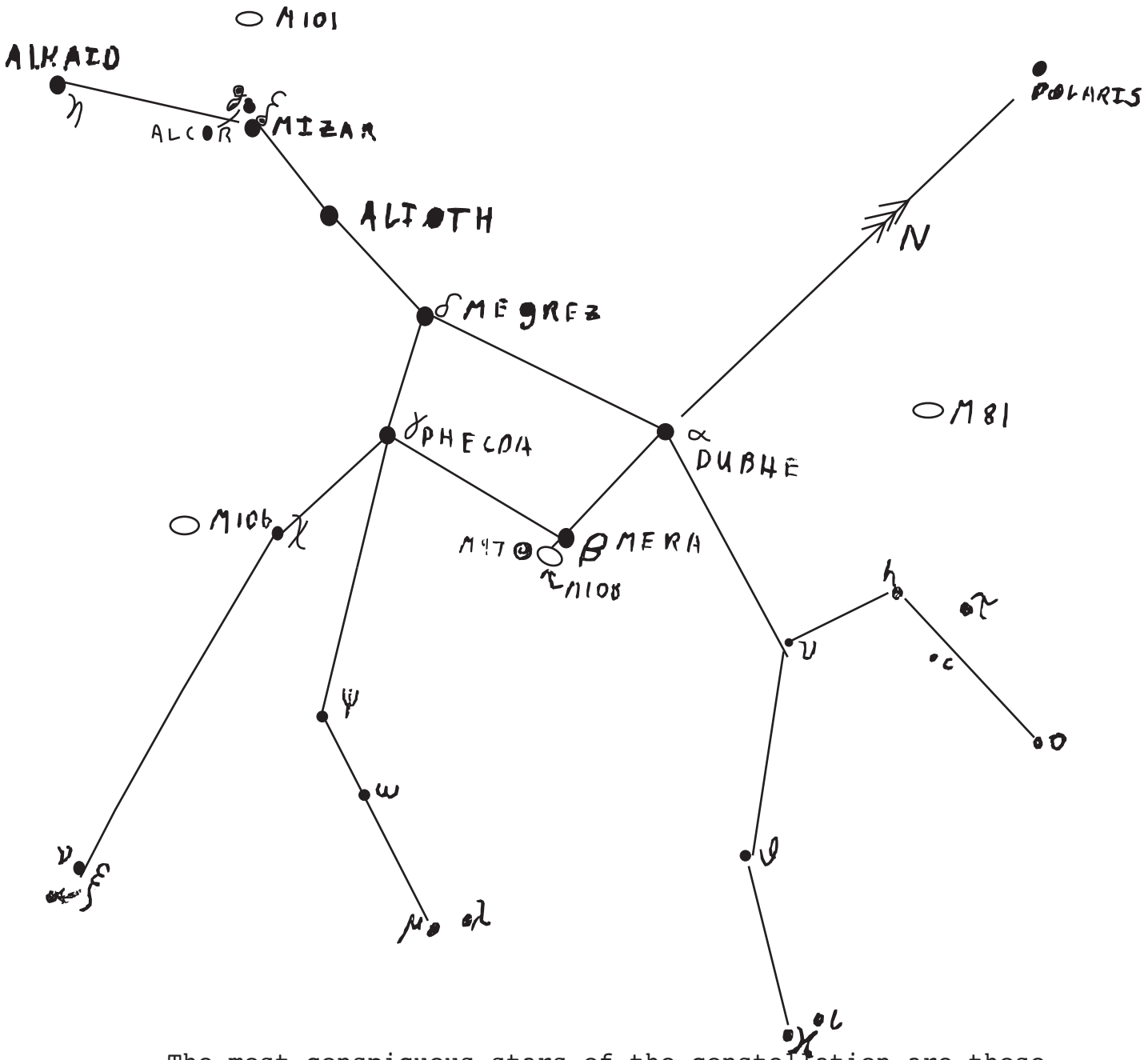
Note →→#### Anyone changing their address for the sumer, notify me
so I can send you your news letters.

Have a happy summer.

p.s. Anyone wishing to do some summer observing with the Queen's telescope can contact me. As I write this last line I think something has snuck up behind me.....

P.P.S. THE TELESCOPE DRIVE IS NOW FIXED AND WORKING PERFECTLY

URSA MAJOR



The most conspicuous stars of the constellation are those with proper names. For all the stars shown the greek letters for them are given. Most of the stars will not be usually visible from the city because of the light pollution. The 7 main stars are quite bright and can be seen easily except on cloudy nights(obviously). They have been called by many names in many different countrys but all over the world (where they are visible) the most common creature has been the bear, despite the uncommonly long tail. Other names that have been given to it are, the Dipper, the Wain(wagon), the Coffin,and mourners, the Plough, the Septentrione, and the Seven Sages. It can be seen in all seasons and at all times of the night. It is a very impressive constellation.

I hope everyone appreciated the fine weather, the beautiful clear skies, we had for observing last Sunday evening. If you did any detailed timings as part of your observing, please keep your notes and bring them to the next meeting (whenever) and we can compare and discuss.

My observations as to colour were something like this: There was a very significant darkening of the lunar disk for well over 30 minutes both before the beginning and after the end of the umbral eclipse, especially of the upper parts of the disk. In the umbral eclipse, the eclipsed portion was a very dark grey in colour but there was a slight bluish hue for a time. The unshaded portion of the disk was considerably darkened and ranged from bright and yellowish near the south pole area to a rather dark orange near the eclipsed portion at mid-eclipse.

The Compendium Of Esoteric Facts Column.

This time we ask you:
Did you know that:

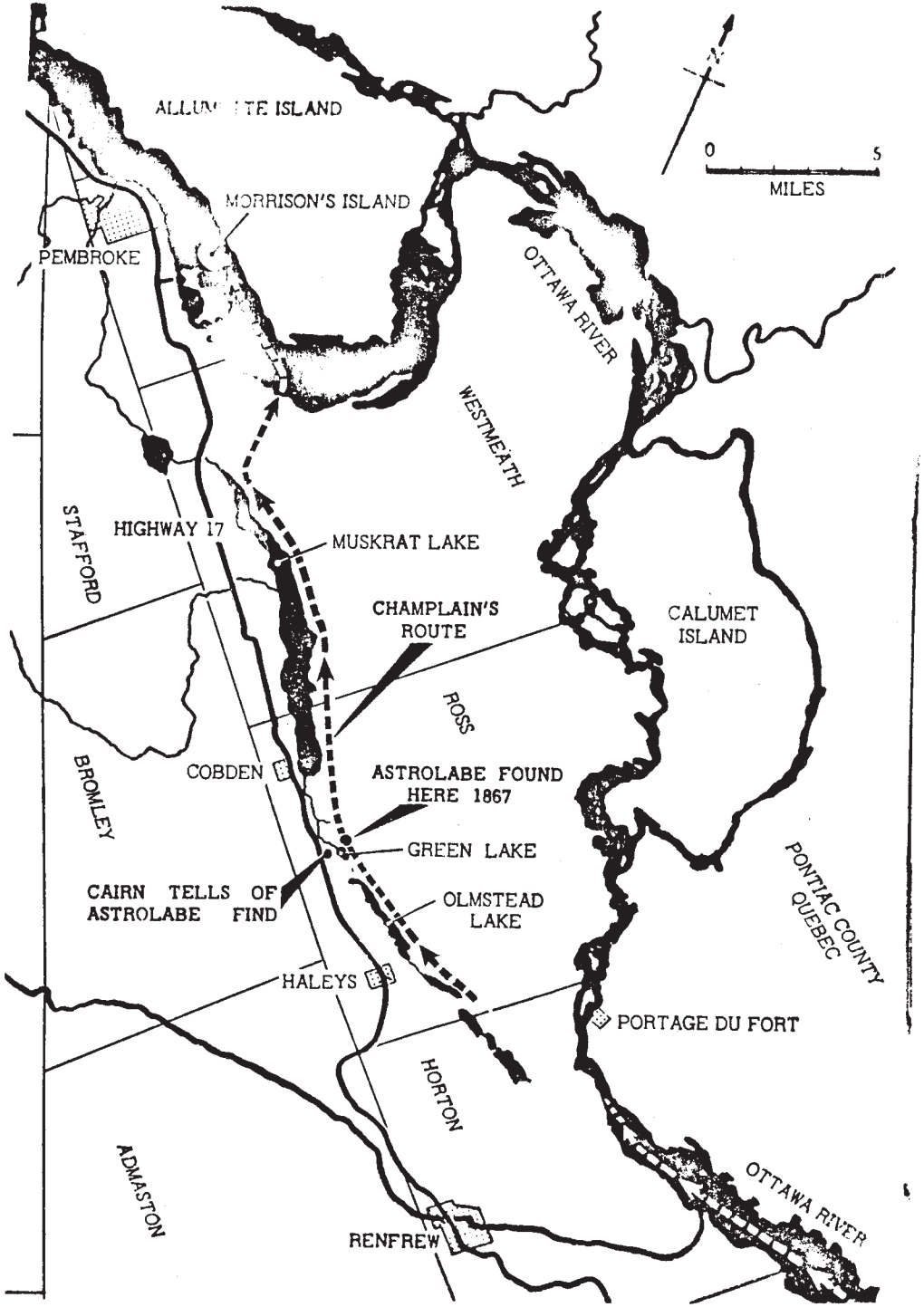
The maximum distance north of the sun at which Venus passes at time of inferior conjunction is slightly more than 8°. If this occurs in the early spring, the sun and Venus are very favorably situated both near the western horizon slightly after sunset and near the eastern horizon slightly before sunrise, so that it is possible for several days to see Venus both in the evening and morning. That is exactly what is happening currently. (I write this on April 5th). Currently Venus is over 7° north of the sun, very near to the maximum mentioned above.

Venus Observing.

Because of weather problems and obstructed horizon problems, I have not seen Venus in the evening since Mar 31 when it was about 9° above the horizon, about 20 minutes after sunset. If you have seen it since that date in the evening, or if you see it in morning and evening the same date, please record it and bring along the information to our next meeting (whenever).

Look for Mercury this month, too.

AN ASTRONOMICAL INSTRUMENT OF IMPORTANCE. The following 2 pages continue what we discussed at one meeting. They are about Champlain's Astrolabe.



Indians and Champlain along ponds and lakes in 1613 to avoid the portages at the southerly end of Calumet Island.

On June 4 Champlain passed *Sault de la Chaudiere*, as he called it. (Chaudiere Falls, between Hull and Ottawa; see the section "Up the Ottawa"). At the portage near the falls which "makes such a noise in this basin that one can hear it from more than two leagues away," he obtained the latitude, probably by taking a sight on the sun with either a cross-staff or an astrolabe. The only method he had for getting his longitude was to estimate how far he had travelled westward from his starting point. It was not until the 18th century that navigators and explorers had the accurate timepieces necessary to determine their longitude.

On June 5 he portaged past Chats Falls, for which he did not report a latitude, and paddled along Lac des Chats, a widening of the Ottawa River along which are located Arnprior, Braeside, Sand Point and Castleford in Renfrew County, and Norway Bay and Sand Bay in Pontiac County. Champlain noted in his journal a river flowing from the south into the Ottawa. This was probably the Madawaska along which "live people called *Matou-ouescarini*." Champlain put *Lac Montmorency* on his map of 1613, apparently referring to Lac des Chats and probably honouring Charles de Montmorency, Admiral of France.

On June 6, after spending a night on an island he named *Sainte Croix*, where he erected a cross bearing the arms of France, Champlain passed the Chenaux Rapids (*"petit Saut"*) about four miles downstream from where Ontario Hydro's Chenaux Generating Station was put into service in 1950. "There was a great dispute between our Indians and our imposter (Vignau)," Champlain wrote. The Indians wanted to take the route via a chain of lakes west of the Ottawa. This route avoided a series of rapids by Portage du Fort, and along the southerly end of Calumet Island and was about half as long as the 48-mile loop which the Ottawa takes to the north. On his 1632 map, Champlain indicates by number, with description in his text: *"Sault des Pierres à Calumet qui sont comme alabastre"*, referring to the white crystalline limestone used by the Indians to make pipes.

Champlain's route in Renfrew and Pontiac counties in 1613 has long been known locally as "The Champlain Trail". Such a name honours the founder of Canada and recognizes the man who left the first written record of this part of the Ottawa Valley. (Other white men may have gone over the route before Champlain, but no written record of such a journey has yet been found. Historians have speculated that others, such as Etienne Brulé, travelled the route before Champlain.) This naming of part of the Ottawa River and the portage route is in the tradition established by Champlain himself. Well over 300 years ago Champlain recorded a stretch of the river as *"La riviere de Tesouac"*, after Tessouat of the Algonquins of the Island.

(On his 1632 map, Champlain placed three "markers" along the Ottawa to indicate the course of the river, not to show where he had erected crosses. The "markers" each consist of a circle with a cross on top.)

In later times the fur traders with their big canoes and loads of supplies did follow the Calumet route which Vignau wanted Champlain to follow. The party

Finding an Astrolabe

In 1919 George Edward Lee points (for photographer Charles Macnamara) to spot where he found an astrolabe near Cobden in 1867. Lee was helping to clear land for Captain Overman of the Union Forwarding and Railway Company, and was moving logs with a team of oxen named Buck and Brin. "I had to dig away the moss and marl that the old tree lay in so as to get the chain around the log", he told Macnamara, "and when the log swung around it rolled back the moss like a blanket and there on the ground I saw a round yellow thing, nine or ten inches across, with figures on it, and an arm across it, pointed at one end and blunt at the other . . . I showed the compass to pa and he put it on a stump . . . Just then Captain Roverman (Overman) came along to see how the work was going and old Captain Cowley was with him. Pa showed them the compass and they took it away and pa said they promised to give me $10.00 for it, but I never got a farthing nor saw hide nor hair of the compass since. Poor pa let them have it, but if I had got it up to the house, ma would not have give it to them that easy." (See "Losing an Astrolabe", end of this section).

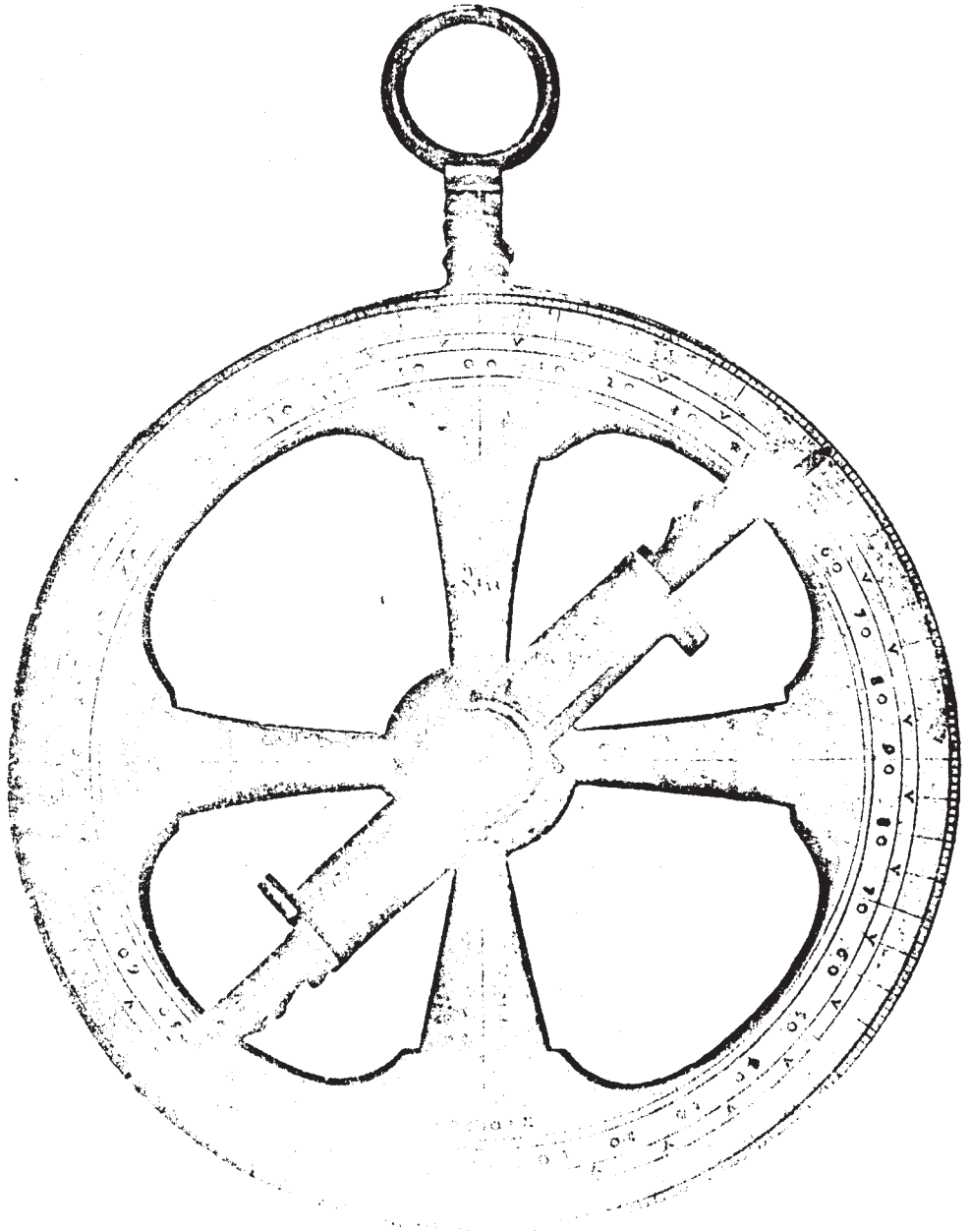
crossed to the west side of the Ottawa where Champlain took another astronomical sight, getting a latitude with an error of a little more than one degree.

Champlain had taken astronomical sights near the westerly end of Montreal Island and at Chaudiere Falls; they were remarkably accurate, considering the instruments available in those days. Errors were five minutes and 13 minutes respectively. His distances throughout most of his 1613 trip varied considerably with the actual size of topographical features, such as lakes. But anyone who has travelled in the area, particularly in the spring when the mosquitoes seek the special treats to be found in the form of human beings, can appreciate the difficulty of keeping one's mind on the number of paces walked, and on the distances paddled. Just as Alexander Shirreff said in his report on the Ottawa in 1831, complaining about the excessive distances given for the route where he wished to see a navigation system to Lake Huron, ". . . the exaggerations increase with the current," so it may be that distances given by Champlain varied in direct proportion to the numbers of mosquitoes.

We can see Champlain in the Chenaux Rapids region, or nearly opposite Portage du Fort, looking into the blinding sun as he sights his instrument (an act which in itself should account for errors), the mosquitoes filling their stern tanks with blood, and perhaps Vignau and the Indians muttering in the background about the best route to follow. Champlain had only to misalign his instrument, if he had the astrolabe found at Green (Astrolabe) Lake near Cobden in 1867, by one-twentieth of an inch to make an error of one degree. On the other hand, he may have made an error in reading the mathematical tables he had to use in conjunction with a sight to determine a latitude.

("Great errors in angle measurement were the rule rather than the exception," declared Lloyd A. Brown of the Peabody Institute, formerly curator of maps at the University of Michigan, in his *The Story of Maps*. He was commenting on the problem of looking directly into the sun when using an astrolabe or a cross-staff. Latitudes could also be obtained by sighting on Polaris, the star at the end of the handle of the Little Dipper; Polaris is close to the celestial pole. But the sights Champlain reports, between Ile Sainte-Hélène and the Chenaux region, seem to have been taken on the sun, judging by the time of day we might infer from his journal, though this is not clear beyond question.)

Intriguing discussions of the errors in Champlain's latitudes in the Chenaux region and at the island he visited later have been published (for example: Russell, 1879; Macnamara, 1919), most of them aimed at indicating Champlain lost an astrolabe. (Champlain does not mention having an astrolabe and does not report the loss of a latitude-determining instrument, either astrolabe or cross-staff.)



This brass astrolabe (Greek: "astro"—"star"; "lab"—"take") was found by Edward George Lee, then 14 years old, near Green Lake, Ross Township, in 1867 and is believed to have been lost by Samuel de Champlain about June 7, 1613. It is now in the museum of The New York Historical Society, 170 Central Park West, New York City. The instrument is shown almost full size (actual diameter is 5⅜ inches). The metal is ⅛ inches thick at the top and ⅜ inches thick at the bottom—apparently to give it a lower centre of gravity and make it hang steadier when in use. Apparently a suspension ring at the bottom, now broken off, was for suspending a weight to give the instrument even more stability. Double hinges at the top suspension ring permit it to hang plumb. The double-bladed bar, called a "dioptera", is pivoted at the centre of the circle. Method of sighting is shown in diagram on page 71. Observer could use either notched sights or pin holes (in rectangular pieces of metal fixed at right angles to the bla[illegible] when taking measurements of the altitude of the sun or stars to determine the latitude. Near the bot[illegible] the