

pollen from the staminate flowers, become the seeds. Do not tell your pupils these things now; but when the speckled alder is in full bloom, in the latter part of April or early in May, get them to examine the catkins and find whether the alder produces much pollen and how it is carried to the pistillate flowers. Please let the REVIEW know their decisions and the grounds on which they base them.

Probably you can find on the alder bushes some of last year's pistillate catkins, thick and dry, which have discharged their seeds.

### Astronomical Notes.

By A. CAMERON.

It is in February that our clocks get farthest ahead of the sun, or rather that the sun gets farthest behind the clock. By the 'clock' is meant, of course, that ideal clock which goes with perfect regularity and ticks off its seconds in absolute unison with the movement of the ideal 'mean' sun. There is no such clock and there is no such sun, but the real sun is so bad a time-keeper that we have had to imagine them; and our best clocks make a wonderfully close approximation to the ideal standard of excellence.

At the beginning of November the sun was over 16 minutes fast. Since then he has been losing time, and on the 11th of this month he is nearly  $14\frac{1}{2}$  minutes slow. So the almanacs say, and so it is for all clocks that are set to mean time. But where standard time is kept the discrepancies between sun and clock have different values from the above, except for places lying along the standard meridians. St. John and Yarmouth both lie very nearly on the 66th meridian. In St. John they keep the mean time of that meridian, and their clocks are 16 minutes slow by the sun in November and  $14\frac{1}{2}$  minutes fast in February. In Yarmouth we keep standard time, the mean time of the 60th meridian, so that in November our clocks are 8 minutes fast by the sun and in February they are  $38\frac{1}{2}$  minutes fast. That makes a difference here this month of over an hour and a quarter between the lengths of the forenoon and the afternoon, noon being taken as 12 o'clock.

The January new moon was visible for the first time, where the south-west sky was clear, on the evening of the 21st. She was over 30 hours old and remained above the horizon nearly  $1\frac{1}{2}$  hours after sunset. Under these conditions it was quite easy to see her, and there was nothing specially interesting in the sight. With the February moon it will be different. On the evening of the 19th she will be above the horizon here for an hour and ten minutes after sunset, and she will be

only 20 hours old. It is not often there is such a chance to see so young a moon; and if the sky to the south of west is then clear the thin curved thread of silver will be a lovely sight and well worth taking some pains to see. Not far off there will be another rare celestial treat for the observer.

A sight of Mercury need not be so very rare a treat if one will take a little trouble to know when and where to look for him. But most people don't take this trouble and consequently most people rarely or never see him. Indeed there is a very general impression that he can't be seen at all with the naked eye. There will be a capital opportunity this month to get rid of that common error. From the 10th to the 25th it will be easy for the naked eye to see him every clear evening. On the given dates he will be above our horizon for more than an hour and a quarter after sunset, and on the intermediate dates for a still longer time. From the 15th to the 20th his brilliancy will be greater than during any other of his evening appearances this year. On the 20th he will be near the two-day-old new moon.

That ruddy stranger now visiting the constellation of the Lion is Mars. The other larger planets are all morning stars at present, Venus, as usual, being also a day star, but much less bright and much less favorably situated for daylight observation than she was last autumn.

### From Egbert to Victoria.

Queen Victoria is descended both from Egbert, the first king of all England (A. D. 800), and William the Conqueror (A. D. 1066). From Egbert to King Edmund Ironsides and his son, Edward Atheling the Exile, the male line runs clear. Here, however, the succession follows the distaff, that is, the female side—the Atheling's only son having died childless. His daughter Margaret married the Scotch King Malcolm, and their daughter Matilda married Henry I of the English Plantagenet line. Henry I was the son of William the Conqueror; so that in the veins of Henry II the son of Henry I and Matilda there flowed Norman and Saxon blood. William the Conqueror also claimed connection with the Saxon line as far back as Alfred; but there is no necessity to consider this claim which rests only on tradition, and that tradition probably manufactured by William and his adherents. The line of descent is clear without it.

From Henry I to Edward III the descent is direct, but in the Wars of the Roses, in which so many representatives of the royal line were extinguished, the succession becomes so entangled that only a genealogical table