quantity of snow, say a foot, will last as long on open ground as it will among trees. As I have laid much stress upon this matter of evaporation which some may think hardly applies to snow, I will say that a considerable body has been known to disappear from our streets without making a particle of mud, leaving the ground dusty, showing that none of it melted, but that it all went directly into the air. And this will occur any time when the thermometer does not go above 32 degrees within a short time after a storm. The importance of presenting as small a surface to the action of such an air as that is very apparent, and it is in storing up the snow in heaps and packing it away in deep pockets that the economy of nature is manifested. The center of the body will not melt at any time and it requires a very warm day to get at the under side of a snow drift. The grass will be growing all around it before the ground underneath it gets warmed up sufficiently to start a stream from it, but let a tree stick its head up through the crust and it will go quickly. I have yet to see the first body of perpetual snow lying among trees. It will hardly do to say that the timber lies below the line of perpetual snow, for there are many banks which only disappear entirely once in ten years or so, when there comes a long dry summer, which have trees growing higher up on the same mountain side.

In any case I do not wish to be understood as favoring the destruction of the forests of this or any other country. I never cut down a tree in my life and never saw one fall without feeling that I had lost a friend. Whatever is proven there will always be abundant reasons for preserving extensive tracts of woodland everywhere that trees will grow, and it is time the matter became one of public concern.

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CURRENT NOTES ON ANTHROPOLOGY.

THE QUESTION OF THE CELTS.

This question has broken out afresh in Europe, as is the case every few years. The immediate cause was the publication of an essay, by A. Bertrand and Salomon Reinach, entitled, 'Les celtes dans les Vallees du Po et du Danube,' in which the authors claim that the proto-historic culture, the remains of which are found in the valley of the Po, is akin to that of an approximate age in the valley of the Danube, and that both were the products of the 'Celts.'

Prof. Virchow, in a lecture published in the 'Correspondenz-Blatt' of the German Anthropological Society, December, 1895, reviewed their arguments, substantially agreed with them, and further extended the area of this so-called Celtic culture.

By 'Celts' the archæologists understand a series of independent tribes who about 500—1,000 B. C. inhabited central and portions of western Europe. Their language was of that Aryan family which we now know as Celtic, represented to-day by Irish, Highland Scotch and Welsh. In stature they were tall, their skulls narrow (dolichocephalic), their complexion ruddy, eyes blue or gray, hair blonde or reddish. By the Latins they were called Celti, Galli or Galatæ, all three words from the same root *kel*, meaning violent or warlike.

The anthropologists, however, headed by Broca, apply the term 'Celts' to a small dark race in central France, and this leads to wild confusion. A long discussion, aimed to clear up the subject, by Dr. Lefevre, Dr. Collignon, Mortillet and others, has appeared in the Bull. de la Sociétè d' Anthropologie of Paris, 1895. It is worth attentive reading by any one who desires the latest on this vexed question.

DANISH ANTIQUITIES.

Professor Japetus Steenstrup, of Copenhagen, has lately issued two memoirs of

much interest to students of Northern antiquities, both published in the 'Memoires de l'Academie Royale des Sciences de Danemark.'

One is a discussion of the remarkable so-called 'silver vase' exhumed in 1891 at Gundestrup. Upon its sides were numerous singular figures in relief, and it has generally passed as an example of old Norse work. This view is disproved by Professor Steenstrup, who shows that without doubt it is part of a series of decorations from some Buddhist temple in northern Asia. His memoir is abundantly supplied with plates and illustrations showing the identity of motives. It probably was a part of the spoils of some ancient raid which by exchange had reached the western shore of the continent.

His second memoir is another study of a similar character, bringing out the relations which in proto-historic times existed between Scandinavia and northern Asia. It is entitled 'Yak-Lungta Bracteaterne,' and contains numerous illustrations of gold bracteates from the two regions, showing the same character of design and workmanship.

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SCIENTIFIC NOTES AND NEWS.

ASTRONOMY.

THE February number of the Monthly Notices of the Royal Astronomical Society, copies of which have just been received, contains the annual reports of the directors of the British observatories for the year 1895. Many of these reports are very interesting, and they show that the customary astronomical activity has not decreased. The routine meridian observations and those of comets, etc., have been carried on with the usual success. Nearly all the plates for the astrophotographic catalogue, and some of those for the chart, have been taken at the Greenwich, Cape, Oxford and Sydney observatories. The work of measurement has also made quite satisfactory progress. We quote the following from the Greenwich report:

"Towards the determination of the right ascensions and declinations of the stars the following steps have been taken: From the right ascensions and declinations given in the catalogues of the *Astronomische Gesellschaft*, 'standard coördinates' have been deduced for all stars on 72 plates which are contained in these catalogues. (By standard coördinates are meant the rectangular coördinates of the stars on the plates.) By a comparison of these with the measured coördinates, plate constants have been determined, from which the standard coördinates of other stars on the plates may be obtained by means of a linear correction, and the right ascensions and declinations deduced by a trigonometrical transformation, if desired. A full account of this, as well as the comparison of thirty overlapping plates, is given in the Monthly Notices, January, 1896."

The above shows that the reduction of the catalogue plates is well under way at Greenwich. The same is true at Oxford, and, as we mentioned in a previous issue, it is also proceeding satisfactorily at Paris and Potsdam. At the Cape considerable measuring has also been done. But the most important announcement from the Cape is as follows:

"The printing in two volumes of 'A Determination of the Solar Parallax and the Mass of the Moon from Observations of Iris, Victoria and Sappho,' is approaching completion. The part of the work referring to the meridian observations of the comparison stars is by Prof. Auwers, that of the discussion of the heliometer observations of Iris by Dr. Elkin."

We have not space to refer to the many details given in the reports of the various observatories. But they are all interesting, and will repay perusal by astronomers. The Society's medal was conferred upon Dr. S. C. Chandler, of Cambridge, Mass., as has already been announced in this journal.

THE *Astronomical Journal* of March 31st contains an article by Prof. Simon Newcomb on the 'Variation of Personal Equation with the Magnitude of the Star Observed.' This is the first attempt to make a general discussion of this rather obscure point for a large number of star