

**MOUNTAIN SHADOWS.**

The curious natural phenomenon which the accompanying pictures illustrate is one which is rarely seen, although it is of common occurrence, since it is produced only by very high peaks.

A high, prominent mountain peak, which towers above all its neighbors, will, when the sun is near the horizon, cast a distinct shadow upon the clouds behind it; and at times this shadow is very marked indeed. The larger photograph which we reproduce shows the shadow of Mount Hood cast in this way by the rays of the setting sun. The outline of the mountain extends across the center of the picture, while in the distance other ridges are dimly visible through the smoke clouds, upon which the shadow of the peak is projected. The height of Mount Hood is 11,225 feet. That the clouds are by no means necessary, however, in order to obtain a shadow, is demonstrated by the other photograph, which shows the shadow of Pike's Peak cast upon a perfectly clear sky. This famous peak is 14,147 feet high. The air in the high, upper region about the peak is so very clear that it seems well nigh impossible a shadow should be cast upon it; but, however clear it may appear to the eye, it contains enough dust particles or notes to receive the shadow of the peak, and thus a startlingly distinct silhouette of the mountain is produced.

If one happens to be near the top of a high peak toward sundown, and on the side away from the sun, a good idea of this interesting phenomenon may be readily obtained; but as most people seldom have the fortune to be so placed, we feel sure our readers will be interested in seeing how it appears in the eye of the ever-present camera.

**Facts About Blotting Paper.**

In England they use a thin blotting paper; here we use mainly a thick blotter, says the New York Sun. Such thin blotting paper as is used here is chiefly for blotting leaves in books. Here we use on a desk a sheet of blotting paper 19x24 inches, the standard size, which may be turned over when one side is pretty well filled with ink. In England the thin blotting paper is folded a number of sheets together, making a sort of pad, something larger than legal cap paper, and when a leaf gets saturated with ink it is torn off.

Blotting paper is not new, but it was first made in this country only about forty years ago. Before that time we used some of the thin English blotting paper, imported; but, more commonly, to prevent ink from blotting, we used sand, which was poured upon the written sheet out of a sand box. The sand box was a common article of desk furniture, as the wafer box was at one time, and almost as commonly seen as the inkstand. It was made sometimes of tin, sometimes of wood. It was, perhaps, three inches in height, and may be two and a half inches across the top, where its diameter was greatest. It was something like a pepper box in the manner of its use; but as to shape, instead of having a convex top, it had a concave top, like a little saucer. The bottom of this saucer was perforated. The box was filled with sand through these perforations. When the box was used sand was poured from it upon the writing. A little of the sand adhered to the fresh ink and kept it from blotting. Very much the greater part of the sand poured out lay scattered upon the paper. Lifting the book or paper, the surplus sand was poured back into the box.

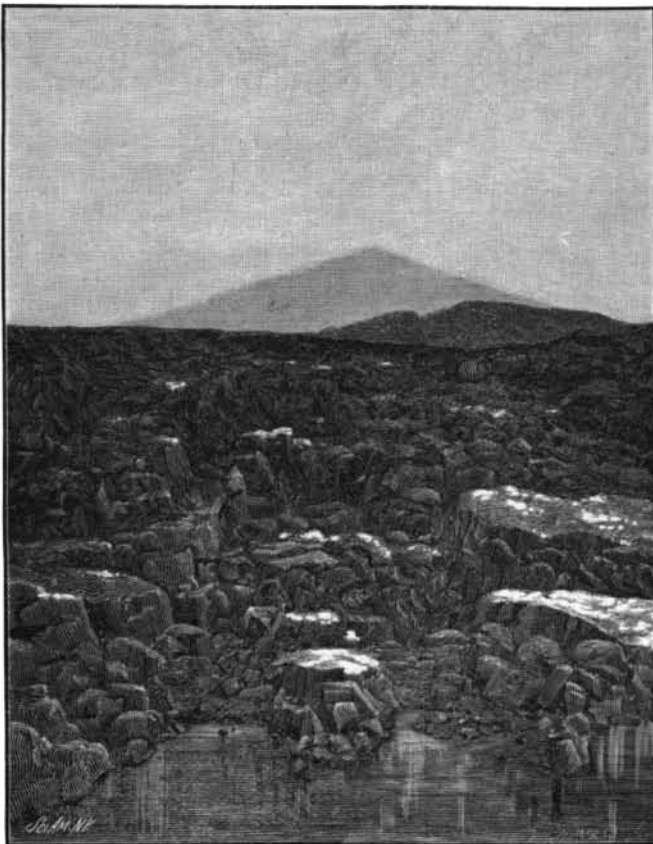
Many of the wooden sand boxes were handsomely turned articles. The sand used was a peculiar fine, black sand of uniform grain, brought from Lake George, in this State.

At the time of the civil war in this country blotting paper had come into comparatively common use. It is only within fifteen or twenty years, however, that it has come into the wide and very nearly general use of the present time. Now the sales of it increase with the population or more rapidly. There are American paper mills devoted wholly to the manufacture of blotting paper, and their products amount to thousands of tons annually, and American blotting paper is now an article of export. We still import a little English blotting paper, but only a very little; not enough to cut any figure in the market.

The very best blotting paper is made wholly of cotton rags. Some poorer grades are made partly of wood pulp

and with it may be some clay. Such papers, as they dry out, become still less absorbent. The addition of dyes to blotting paper makes it less absorbent. English blotting paper is made usually of from twenty to forty pounds to the ream. American blotting paper is made from forty to a hundred and fifty pounds to the ream. Blotting paper colors are white, blue, granite (a very light gray), yellow, and pink. It is made in various shades of these colors. There is sold of white blotting paper ten times as much as of any other color.

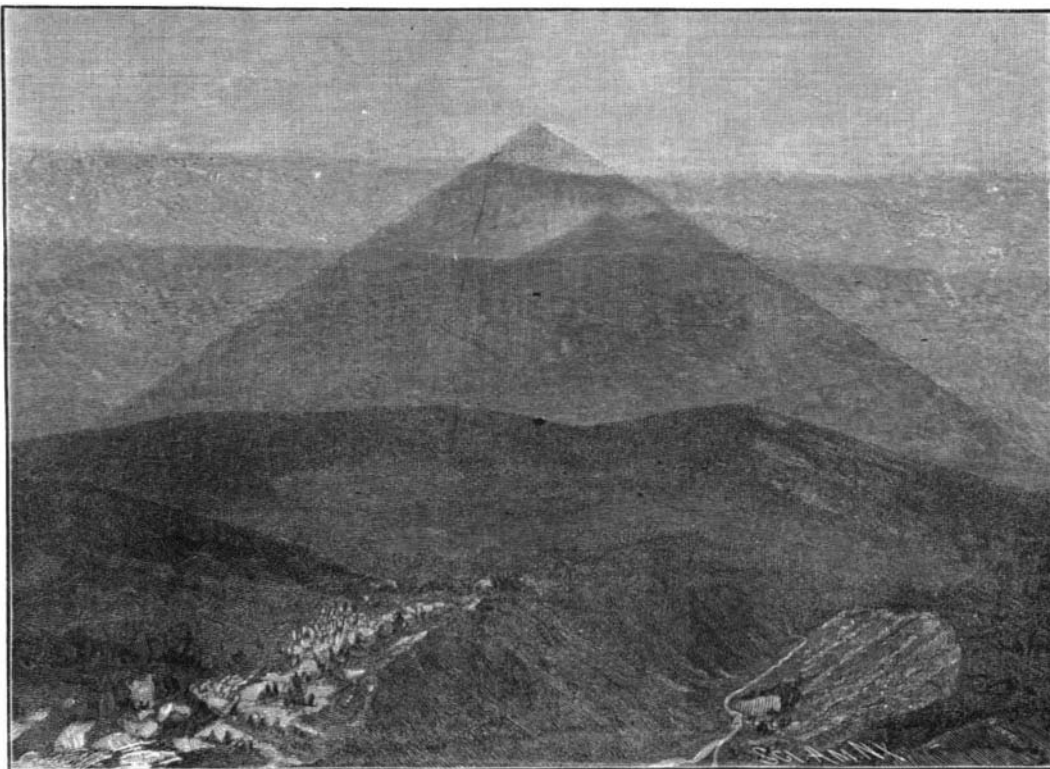
Some of the calenders used in calendering cloths are



SHADOW OF PIKE'S PEAK AGAINST A CLEAR SKY.

made of blotting paper, sheets of which are pressed together to form a roll.

There still comes now and then, to the wholesale stationery dealer in New York, a call for Lake George sand, showing that there are yet some users of the old time sand box; but these calls are now so rare that they are no longer supplied, and the sand boxes have long since ceased to be a part of the wholesale stationer's stock. There, however, may still be found at some retail dealer's a few left over from years ago; and occasionally one of these is sold. A city stationer sold one only the other day, but it was not to be actually used as a



SHADOW CAST BY MOUNT HOOD OREGON.

sand box; it was to finish out the equipment of an old-fashioned desk.

**Preservation of Bread by the Use of Waxed Paper.**

So much has been written within the past few years regarding the communication of diseases through bacilli microbes found in dust, etc., that practical methods are being introduced to counteract their extension or growth. One of the latest ideas is the protection of such an important article of food as bread. In our

cities a large proportion of the bread consumed is supplied by bakeries. Bread from such places must, of necessity, be handled several times by different employes, and it sometimes happens that bacilli germs become attached to the bread during the handling, either from contamination from the hands or perhaps from the clothes of the person making the delivery. So, to protect the bread from such possible contingencies, the custom is being introduced in many places among bakeries of wrapping each loaf, as soon as it is baked, in a sheet of waxed paper, sealing the knot of the string holding the paper surrounding the loaf. The bread is not only in this way well guarded from bacilli germs, but is also kept moist and fresh, as the waxed paper prevents evaporation of moisture, while the consumer is certain to receive an article that can be depended upon as healthful and good, without regard to the number of handlings it has undergone.

The idea of wrapping bread, cake, confectionery, tobacco, soap, meat, etc., in waxed paper to preserve their freshness is quite old, but the use of the paper as a guard against the communication of disease germs is comparatively new, yet it is so practical that it is surprising it has never been thought of or advocated before.

**Nature Study in the Chicago Schools.**

A plan for systematic outdoor or field work in connection with nature study, to be carried on by the pupils of the public schools of Chicago, has been reported by a committee of sixty teachers which was appointed in May, 1896, by the Chicago Institute of Education. The features of the plan may perhaps be best understood by indicating the duties of the subcommittees which the general committee has instituted to care for its various special features, says the Popular Science Monthly. First is the executive committee, the purpose of which is to devise ways and means for carrying the whole into effect and to second the efforts and work of the other subcommittees. A committee on maps will prepare maps of the environs of Chicago to assist the pupils and teachers in a systematic study of the country at a convenient distance around the city: these maps to comprise large maps, each including only one of the most conspicuous geographo-geologic features, and smaller maps showing details—the location of the specific features of interest. The maps already made by Prof. T. C. Chamberlin, and kindly offered by him, will be used as the basis of this work.

A committee on syllabi is to prepare printed outlines and suggestions which will intelligently and economically direct pupils and teachers in their consideration of the different areas and subjects chosen for study. The syllabus should not be compiled information, but should simply suggest the problems that are furnished for study by each area and indicate lines and methods of investigation. A fourth committee will look in the libraries after the books that may be useful to the pupils engaged in nature study and available for their use. A committee on instruction and school exhibits will make themselves acquainted with the work of nature study in the schools and with the teachers engaged in it, and make monthly reports to the committee of sixty of what is actually being accomplished, and will establish at some suitable place a permanent exhibit illustrating the character of the work. A committee of public information will see that all these things are made known and kept in mind. A committee on transportation will try to interest the railroads, etc., in the scheme, and to secure convenient facilities and privileges for the transportation of pupils and parties going out to fields of nature study. Arrangements will be made for frequent trips of small numbers, rather than for larger excursions at longer intervals, which might give the affair too much the air of a picnic. Hence it is suggested that only

the pupils of one or two rooms be sent out at a time, under the immediate supervision of their teachers. A committee on finance and a conference committee are also instituted for the purpose indicated by their titles. It is anticipated by the committee of sixty that, when once under way, this plan will be expanded to include every department of school work.

A STICK of timber 119 feet long and 22 inches square, without a knot or blemish, was cut in a mill at Hoquiam, Wash., recently.