KEEPING APPLES.

The main element of success is a low and uniform temperature just above freezing. The house cellar is the farmer's fruit-room in winter, and if properly managed, answers the purpose very perfectly. But there is a great deal of carlessness in guarding cellars against extreme zero nights, and the apples and vegetables are frequently frozen before the owner suspects any danger. Banking the under-pining with a thick mat of leaves, straw, old hay, or evergreen boughs, will keep out the frost. These are within reach of every farmer, and are easily kept in place with boards or poles. But some cellars are very moist, and the temperature is likely to be too high rather than too low. This can be remedied by having a window that can be shut or opened at pleasure. By consulting a thermometer, which costs but a trifle, it is quite easy to keep the temperature in the cellar between 32 and 40 degrees, which is even enough for all practical purposes. The apples keep better in barrels, or in small tight packages, than in open piles or shelves, because they do not feel the change so soon. For the same reason some wrap each apple in paper, or pack them in sawdust or land plaster. This requires a considerable labour, but nice fresh apples in May and June are worth working for. In dry cork sawdust they keep sufficiently well without wrappers. If this is not available, dry hard-wood sawdust should be used in preference to pine or other resinous woods. These affect the odor, and sometimes the taste of the apples. If no packing is used, the barrels should be overhaulded once a month, and if any decayed apples are found, they should be carefully removed. Keep the apples headed. Look at the thermometer every night and morning. If too warm, let in more cold air, if too cold, shut the window entirely. It takes but a moment to regulate the temperature. By this simple process we have never failed to keep winter apples in good condition until spring.—*American Agriculturalist.*

FEEDING LAYING HENS ON INDIAN CORN.

The abundant use of Indian corn or maize for laying hens has long been known to be productive of an over-fat condition, leading to a diminished egg supply. The evil is very well demonstrated in the following extract from the *Albany Country Gentleman*, U.S., which we reproduce with one or two slight verbal alterations :—

When hens are fed on Indian corn in winter, or where they are allowed access to it in unlimited quantity, as they are on a great majority of stock farms, if they are not fat at first, they soon become excessively so, and so remain all winter, laying few eggs—the number of which, however, is determined by the condition, whether the winter is a warm and open one, or cold, close, and snowy. Now the assumption is that it depends more on the temperature than the food whether hens lay or refuse to lay in the winter season. This I am not disposed to agree to, believing that egg production depends much more on food than on temperature ; and even going so far as to say that, while hens feed exclusively on Indian corn, but in every other way cared for and housed in the best manner, will lay scarcely at all, other hens neglected in every way, except that a sufficiency of the right kind of food is supplied, will continue to lay without much interruption the winter through. And the explanation seems to be an easy one when we look at the constituents of the average egg. It contains : Shell, 2 per cent.; yolk, 30 per cent. ; and white, 68 per cent. Maize-fed hens are almost always bursting with fat; and in addition to this condition, they have an abundant store, or reserve, of half-formed yolk of eggs— that portion formed before the egg enters the oviduct or egg passage, while the white and shell are secreted as the egg passes through. Now, fat and yolks of eggs are readily made up of the starch and oil of their food (corn), but from where is to come the 70 per cent. of shell, membrane, and white, of which the larger share of the egg is composed ? The white is almost purely albumen and water, and so is the membrane lining of the shell, and the shell itself is carbonate of lime ; but corn contains scarcely any of either, and there is no known alchemy of nature that will change starch into albumen, or create carbonate of lime where its constituted elements do not exist. Corn fed hens, then, do not lay in winter, and especially when the snow covers the ground, because there is nothing in their food that furnishes material for the white and shell of the egg, but abundant material for fat and rudimentary yolks. As soon as there is a thaw, or when spring comes, corn-fed hens commence laying, and continue to do so, simply because they are able to supplement this food by grass.

LUMINOUS WRITING.—Fix a small piece of phosphorus in a quill, and write with it on paper ; if the paper be then placed in a dark room, the writing will appear beautifully luminous.

ANCIENT MOUND BUILDER'S FORT.

(See page 60.)

We give, this month, an illustration of an ancient Fort in the western part of the County of Elgin. This fort was first discovered by white men upwards of fifty years ago. This singular earthwork is situated in the midst of a dense piece of woods, and unmistakable signs show that it was built by a people far in advance of the Indians, as we have known them. From north to south the enclosure measures 300 feet, and from east to west 280 feet, and the double embankments encircling it measure 30 feet across. A careful examination shows that the earth was not thrown up around the trees, but that the trees commenced to grow after the embankments were made, which proves the Fort was made long before white men had made their appearance on this continent.

DOMESTIC.

LUMINOUS WRITING.—Place a small piece of solid phosphorus in a quill, and write with it upon paper. If the writing be then taken into a dark room it will appear beautifully luminous.

TO OBTAIN FIRE FROM WATER.—A small quantity of potassium thrown on to the surface of a little water in a basin will immediately produce a beautiful rose-coloured flame.

WATERPROOF PAPER.—A nice waterproof paper, transparent and impervious to grease, is obtained by soaking good paper in an aqueous solution of shellac or borax. It resembles parchment in some respects. If the aqueous solution is covered with aniline colors, very handsome paper for artificial flowers is produced.

CARE OF THE TEETH.—The worst of all bad habits is that of picking the teeth with a pin, and nothing is so predisposing to toothache. If such a habit must be indulged in, use a quill. Add, lastly, be it observed that the future perfection of the teeth depends upon the attention bestowed upon them in youth. Parents cannot be too strongly impressed with the importance of this advice ; nor can youth be too frequently reminded of any carelessness or neglect to themselves.

IT is hardly possible to introduce successfully an improvement in machinery of any class without the aid of a good engraving. It is only serves to show at a glance the valuable features of the machine, more effectually than the longest verbal description can do, but it also constitutes the very best method of advertising an invention, its attractive appearance securing the attention of the reader, while a column of reading matter, without illustration, might be overlooked.

PRESERVE AUTUMN LEAVES.—Press the leaves between sheets of paper until they are dry. Then paint them over both sides with a light coat of linseed oil and spread them out on waste paper to dry, which will require two or three weeks, turning the leaves over once or twice to prevent their adhering to the paper. The use of wax to preserve leaves requires so great a degree of heat as to change their color, and the application of varnish renders them brittle, but with the oil they retain their flexibility and color for a year or more.

EXTRACTION OF A LIVING INSECT FROM THE EAR. — The *Archives Médicales Belges* relates the following case : A little girl, three years old, put an insect, "*bête du bon Dieu*," into her ear. Sharp cries, agitation and convulsive symptoms, ensued ; injections of water were made without result. The physician then conceived the idea of asphyxiating the insect by means of chloroform, he dropped four drops chloroform upon a small piece of cotton which he introduced into the ear. Immediately the child ceased crying, and complained no further of any disagreeable sensation ; the insect had become asphyxiated ; an injection of warm water brought it away dead, and no further trouble ensued.

PRESERVING EGGS.—A correspondent of the English *Mechanic* says regarding preserving eggs : "I beg to say that, in the year 1871-2, I preserved eggs so perfectly that, after a lapse of six months, they were mistaken when brought to table for fresh-laid eggs, and I believe they would have kept equally good for twelve months. My mode of preservation was to varnish the eggs as soon as possible with a thin copal varnish, taking care that the whole of the shell was covered with the varnish. I subsequently found that by painting the eggs with fresh albumen, beaten up with a little salt, they were preserved equally well, and for as long a period. After varnishing or painting with albumen, I lay the eggs upon rough blotting-paper, as I found that, when allowed to rest till dry upon a plate or on the table, the albumen stuck so fast to the table or plate as to take away a chip out of the shell. This is entirely obviated by the use of the blotting-paper. I pack the eggs in boxes of dry bran."