Poultry Notes.

Feeding Fowls.

Where there is a family, and consequent consumption, there are many auxiliaries, such as bread crumbs, groats that have been used for gruel, etc. But it must be borne in mind that these are in the place of other food, and not in addition to it. When this can be had, other food should be diminished. I am not an advocate for cooked vegetables, except potatoes. Boiled cabbage is worse than nothing. In fact it must be borne in mind that corn, either whole or cracked, is the staple food, and the others are helps. Do not give fowls meat, but always have the bones thrown to them after dinner; they enjoy picking them and perform the operation perfectly. Do not feed on raw meat; it makes fowls quarrelsome, and gives them a propensity to pick each other—especially in moulting time, if the accustomed meat be withheld. Hundreds have purchased birds, above all Cochin Chinas, on account of their great weight, which being the result of meat feeding, has proved a real disease, incapacitating them for breeding. Where proper food is provided, all is not accomplished; it must be properly given.

No plan is so extravagant or so injurious as to throw down heaps once or twice a day. They should have it scattered as far and wide as possible, that the birds may be longer and healthier employed in finding it, and may not accomplish in a few minutes that which should occupy them for hours. For this reason every sort of feeder or hopper is bad. It is the nature of fowls to take a grain at a time, and to pick grass and dirt with it, which assist digestion; but if contrary to this, they are enabled to eat corn by mouthfuls, their crops are soon overfilled, and they seek relief in excessive draughts of water. Nothing is more injurious than this, and the inactivity that attends the discomfort caused by it, lays the foundation of many disorders. While speaking of food, it may be observed, that when, from traveling or other cause, a fowl has fasted a long time—say 30 or 48 hours—it should not be allowed any hard food. For the first three hours it should have only a small portion, say a teacupful of sopped bread, very wet, so much as to serve for food and drink. If the bird appears to suffer much from the journey, instead of bread and water give bread and ale.—*Cor. Mich. Farmer.*

Raising Chickens on Paper.

The facility with which almost any of the farm operations can be carried on by means of a lead pencil and a piece of paper, is fully shown by a genius in the Atlanta, Ga., *Herald*. It is to be hoped that all who have $1,000 in loose cash will not suddenly rush into the raising of eggs and chickens, else it might affect the price of beef and pork, to the detriment of those who are seeking a living by furnishing these necessary commodities of life. The writer of the sentences below is not the first man who has counted his chickens before they were hatched. The way to accrue wealth suddenly by the investment of $1,000 in poultry is thus stated by the enthusiast, who, it is hoped, has no patent on it:

With $300 he can purchase 1,000 good hens; an additional $50 will buy him 100 cocks. Let him then rent a good piece of grassy land near the city, and expend $40 for fixing up chicken-coops, neats and fencings. If he can then with the balance of his money purchase a cheap horse and and second-hand wagon he is ready for business. His hens will furnish, at a low estimate, an average of 600 eggs a day the year round—though, for certain purposes, let us say fifty dozen per day. He can secure steady sale for them at an average of seventeen cents per dozen, or $8.50 per day, or, in round figures, $3,000 a year. The food of these fowls may be liberally put at $250 per annum, and, with the little garden patch, which should be cultivated, the bee-hives, which should fringe the house, the cow, that should be carefully attended to, the man and his family could easily live on $1,000 a year. Putting his rent at $200 cash per annum, one would have profits of $1,500—quite a handsome thing. The man with $1,000 is really affluent if he only knew it.

Meat for Fowls.

Adult fowls when moulting, and young ones when feathering out, need meat with their daily food. I am well satisfied, from my own experience, that Brahmas and other large breeds will do much better, and make far stronger and healthier fowls, if, as soon as they will eat it, a little cooked meat, chopped fine, be fed to them every day. Those who never tried it will be surprised to see at how early an age and with what eagerness the chicks will eat the meat. It should be cooked and cut up fine, so they will have no difficulty in swallowing it. This season I have some of the finest Brahmas I have ever raised. I fed them meat almost every day, from the time they were two weeks old till they were well feathered. If they had been on a grass run where they could have gathered insects, they would not have needed meat so much; but I think, under any circumstances, meat would have been beneficial. My experience has also taught me that it pays well to feed meat to hens that are laying, to keep them at it, and to those that are not laying to induce them to lay.—*Poultry Record.*

HATCHING COLD EGGS.—A correspondent of the *Scientific American* says:—A hen having left her nest for two days and a night, after sitting within two or three days of the time of hatching, and the eggs being perfectly cold, out of curiosity I determined to try an experiment. I removed them to the garret room, which was very hot, the thermometer in the coolest part of the house being at the time 95° Fah. On the third day from the time the eggs were left by the hen, they hatched by themselves, and the chickens are now running about the yard, quite strong and hearty. I would like to know if any one ever met with such an incident.

GAPES IN CHICKENS. — We have several inquiries concerning gapes in chickens. It is now, we believe, generally accepted that the disease is caused by a worm, the progenitor of which is a louse found on the heads of chickens soon after hatching. This "louse" deposits its egg in the nostril of the chicken, where it hatches, and the resulting larvæ or worms are worked back, or work their way back into the trachea of the bird, causing the gapes, and, finally, suffocation, unless removed. To prevent the gapes, therefore, these lice should be destroyed by picking off. An ointment, composed of one ounce of mercurial ointment, one ounce of pure lard, one half-ounce flour of sulphur, and one-half ounce of crude pretroleum, applied to the heads of the chickens, is said to destroy these parasites, and where they are destroyed either by such application or by picking them off, the gapes do not occur. A certain cure for gapes is the vapor from carbolic acid. Place a little of the crystalized acid in a spoon or metal saucer, and hold it over a candle or lamp; hold the bird so that it will be obliged to inhale the fumes, being careful, however, not to protract it so long as to kill the chick. One application, if thorough, will usually be sufficient, though occasionally a second may be necessary.—*Rural New Yorker.*

SOME RATIONAL RULES.—The following are intended for the use of poultry breeders:

1. Feed regular.
2. Perches two feet from ground.
3. Nests on ground.
4. Whitewash your poultry house inside.
5. Paint your poultry house outside, if you want the boards non-splitting.
6. Feed plenty of green food.
7. Never over-feed.
8. Fresh water daily.
9. Have a dust bath in your fowl house.
10. Never train your cocks to fight.
11. Give stimulating food when moulting.
12. Make cleanliness a specialty in your fowl house.
13. Clean out fowl house once per week.
14. Breed to the standard.

These are true and simple guides for the poultry fraternity.—*Cor. N. Y. Tribune.*

THEORY OF KEEPING EGGS.—A writer in the *Rural New-Yorker* thus gives his mode of keeping eggs for culinary purposes:—Our theory of keeping eggs is to keep the yolk well inclosed within the glair, or white of the egg. How to do it is the question. Simply imitate mother "Biddy," when sitting, by turning the eggs over daily, or once in two or three days at most. We have never had any trouble in keeping eggs from October to May; and I think they would keep one or two years, if necessary. We simply lay them in something that will hold from one to two dozen, and fasten so they can be turned without much trouble.

CHICKEN CHOLERA CURE.—Mrs. E. R. says she cured her chickens of cholera as follows: I took a lump of alum as large as a hen's egg and dissolved it in half a gallon of water. This I thickened with corn meal and gave it three times a day. Pursuing this treatment, my hens were soon well.

The Fossil Man of Mentone.

The discovery of a human skeleton in one of the grottoes of Mentone, a village on the south coast of France, near Nice, has produced for some time past no small excitement in the scientific world. The cave in which it reposed is hollowed in the garumnian limestone immediately below the nummulitic tertiary deposit so well developed in the vicinity. Some large imbedded rocks, probably post-eocene, gave rise to the natural excavation.

It appears, from the recent investigation of M. Riviere, that, at the upper portions of the caverns examined, remains of instruments and tools were found, belonging to the prehistoric epoch which immediately preceded, in the west of Europe, the appearance of metals. Below the surface, beds abound, remains of human industry indicating a civilization even more primitive than the antiquity assigned them by the superposed masses. In this locality was discovered, at a depth of 21 feet, the famous human skeleton. The earth was evidently in virgin condition, and hence the remains clearly belonging to the geological and palæontological age of its surrounding deposit. While, however, the fauna discovered in connection with the humane relics indicate a very ancient palæontological epoch, the bone and stone instruments, and especially the necklace found on the skeleton, seem to point to a more recent period. The presence of cave bears and hyenas, the *rhinoceros tichorinus*, and *bos primogenius*, evidently relate to the most ancient quarternary epoch, the age of the bear; while, on the other hand, the abundance of remains of deer of various species and of small hight (chamois especially), the fact of the multiplicity of bone tools, needles, chisels, and a *baton* of command, together with the peculiar necklace which closely resembles that found on the fossil man Cra-Mango, lead to the conclusion that the series of objects belongs to an age posterior to that of the bear, namely, to that of the reindeer. It is believed, however, says Dr. Garrigou, in *La Nature*, that the original owner of the skeleton existed during the latter age, and was buried in a cave formerly inhabited by men of the preceding epoch.

The Verbena.

This beautiful little flower is one of the best bedding plants in cultivation. Its brilliant tresses of flowers of all varieties and shades of color continue in bloom during the spring, summer and fall, and it only ceases flowering during the short frosts of winter. It is easy of cultivation, and should be found in every garden; it grows well in any good garden soil and, looks best when grown in beds four to six feet across.

Take a single plant and set it out in the middle of the bed, and in one season it will cover it fully. The bed should have a full exposure to the sun and away from all shade, for this plant will not bloom freely, except when in a bright sunshine. The stems, as they trail upon the ground, take root freely, so there is no difficulty in propagating them to any extent.

The varieties of this flower are almost unlimited, but the cultivator only wants to select the different colors which suit his taste and he will have abundance of flowers. They may be found in almost all shades of color; white, blue, pink, scarlet, maroon and purple are among the best.

Miscellaneous.

The Tea Plant.

Advices from India indicate rapid progress in the extension of tea plantations. For a time there was no interruption; Englishmen went into it with extravagant expectations. An acre of plants was supposed to realize 400 lbs. of tea; but half of that amount proves nearer the average. The wages of natives is sixpence a day, equal to our shilling: but the whole cost was much underrated. The tea land is generally jungle; the clearing proved over-expensive. They have 1,500 miles, the lowest average, from the tea range to the coast. Many plantations belonged to companies, having needless expense in London. Some districts had to abandon it because summer rains were scarce and uncertain, and irrigated tea is inferior in quality and production. Another trouble was the cost of transport inland. This absorbed the profits; so that unless India tea would bring much more than China prices, it would not pay.

Now there is a revival. New adventurers enter it with more practical views. There is economy practiced and there is great improvement in cultivation, but especially in the methods of curing the leaf. There is better tea made, and its price is advanced. Teamen speak confidently of supplanting Chinese tea in the course of 20 years. Already 20 millions of pounds are sent annually to London; chiefly black tea. In 5 years this will be more than trebled, in all probability.

The increased home demand deducts a considerable amount from shipments. The natives are using it freely and the mountaineers take it freely beyond the Indian country. For their markets only green tea is taken. It is put up in block or brick shape. They eat the leaves, soup-fashion.

India teas suit the English taste. The flavor is much more pronounced than the Chinese teas, and "it goes twice as far." It requires being tried a few times, before the palate approves the change from long accustomed brands. But once established, no one goes back to the Chinese article.

Not long ago, a chest of India tea was sent to San Francisco, to try the market. It was too small a quantity to justify our prices for advertising and private appeal to fancy grocers ended in discouragment. Two dollars a pound would only cover cost. They who tried it, pronounced it worth the money; but it was decided that the public would not buy enough to make business.

There is in India tea a marked exhileration, which would make it acceptable, if it were known. It quiets nervous disturbance, produces equanimity, and in half an hour exultation of spirits. If we had direct trade with Calcutta, India teas might be introduced, very much to the improvement of our health and the enjoyment of the tea table.

Is there ground to hope that the tea-plant can be cultivated with profit in California? We fear, not.

In this dry climate the leaf grows thin and woody. In India the leaf is fleshy. After the usual down-pouring of the India summer rains, the tea plant throws out a quick and vigorous growth of leaf, which no irrigation in a dry season can produce. In a wonderfully short time, the new leaves are fit for plucking; and, as a rule, the quicker the growth the richer the leaf. We might grow succulent leaves in our moist bottoms; but prime tea requires elevated land. As a rule, the upper mountain ranges, nearest the snow line or within it, produce the best teas. We tasted tea made from Japanese plants, cultivated by Herr Schnell, by irrigation, in Eldorado county foot-hills; and it awakened a suspicion that *theine*, the peculiar element desired, was almost, if not wholly absent. This was noticed in teas made from Chinese plant, cultivated by D. Junius Smith, in South Carolina, without irrigation. It is to be regretted that the doctor's fine tea plantation, which showed vigorous growth, was destroyed in our civil war and no attempt has been made to form new tea gardens.

Peat.

The treatment of peat, and its preparation and adaptation as fuel in an improved form upon its natural state, receives intermittent attention, and we notice three different proposals for processes in development thereof. Two of these relate to the manufacture of fuel from peat, *pur et simple*, and the third to an admixture thereof with other combustible material. Mr. John Fawcett, of Kirton, in Lindsey, Lincolnshire, claims improvements in the treatment of peat as taken from the bog, by effecting the extraction of all excess of moisture, by submitting it to the action of a hydro-extractor; the dried peat being subsequently reduced to a granulated condition, and then compressed into suitable blocks. Captain W. J. Engledue, R. E., of Tavistock, Devonshire, projects improvements in the method of drying manufactured or other peat and artificial fuel, which is to be effected by means of steam or hot-water pipes. He makes a drying shed of special construction, the floor being formed of pipes of iron or metal placed close together, or otherwise, with steam or hot water circulating through the same. On this floor the substances for desiccation are deposited in a moist or liquid state; or they may previously have been dried partially by exposure to atmospheric influences. This apparatus and procedure are applicable also to the desiccation of kaslin or china-clay and similar substances. Mr. Thomas Cadett, of Rosherville, Kent, proposes the composition of an improved artificial fuel, by combining bog peat or turf with oil, or with tar, pitch, resin, asphalte, or with other resinous, bituminous or oleaginous substances. The process consists in first drying the peat or turf by artificial heat or simple exposure, and then immersing it in some one or other of the substances above enumerated. It is then submitted to pressure in moulds, not only to impregnate it thoroughly with the substance used, but also to express any superfluity; and it is subsequently prepared for use by a second drying process. There can be no question about the extent of the industrial resources comprised in the peat bogs of this and other countries, and the problem of their perfect realization is one of great importance, but, on the whole, we are inclined to regard it as yet awaiting solution. These fuel resources are locked up, but we have not yet got the exact key.

The Silver Fleece.

Mohair and its Uses—Supply, Demand and Price—The Angora Goat in America.

As growing mohair promises very shortly to become an important industry on the Pacific coast, a few facts and figures concerning that industry may prove interesting to some of your readers. Until within the past few years the production of this clothing material has been confined chiefly to small districts of Europe and Asia—Angora, in Central Asia Minor, being the principal one. The world's production of Angora fleece amounts to only about 7,000,000 pounds annually, as shown by statistics, and it is asserted on good authority that the mohair manufacturers number but eleven in the entire world. A comparative monopoly on the part of the producers has been the consequence, and a corresponding monopoly on the part of the manufacturers the result. Hence the fabulous prices of all mohair goods. Of these eleven manufactories of mohair goods, not more than two or three are in the United States. The proprietors of one mill in Providence, Rhode Island, imported in 1868 seventy thousand dollars' worth of machinery for the exclusive purpose of working up Angora fleece. Within a year after starting they had consumed all the fleece that could be obtained in the country, being the accumulation of ten years among wool dealers, besides importing 20,000 pounds from Asia Minor, and still they were short of the needful supply to keep their machinery in motion. Within the last three years more than fifty different new varieties of mohair goods have been produced by American manufacturers and introduced into the commerce of the world. These include watered camlets, possessing a beauty and brilliancy of surface unapproached by fabrics made of lustre wools, and barely rivalled by silks, decorative laces, buttons, braidings, coat trimmings, light and durable cloths of elegant texture and repellant of water, light, lustrous, rich articles of dress for the wealthiest ladies of fashion, and possessing an unequalled gloss, softness, strength and durability. In France a kind of lace is now made which is substituted for the very costly fabrics of Valenciennes and Chantilly, said to be cheaper, more durable, and equally beautiful. Utrecht velvets have been for some years made in the same country, and more recently in England, for hangings, furniture trimmings, linings of carriages, fringes, tassels, etc. Ten pounds of this hair thus manufactured have been known to bring at retail five hundred dollars, while the best shawls made in France and the East from mohair warp, using the fur for the weft or filling (the hair giving strength and durability, and the fur warmth and softness) sell at retail at enormous prices, from $500 to $2,500. The skins of the young goats are frequently dressed for furs, colored or not, and used for trimmings, for the costliest ladies' dresses, cloaks, etc., and for muffs and tippets. A single skin thus dressed has been known to sell for from $25 to $100. Besides the fabrics made exclusively from mohair, it is used in Irish poplins, brocades, and in the famous Cashmere shawls. In America the insufficiency of home production, the existence of a monopoly on the part of foreign manufacturers, and the exorbitant price of the raw material, have all conspired to discourage the manufacturers. Special machinery with expert workmen, commanding high wages, are required, and these cannot be set up, and employed with profit, when the price of the raw material is *three dollars a pound*—a price the proprietors of a mill in Lawrence, Massachusetts, refused to pay only a short time ago, stopping their machinery rather than submit to the extortionate demands of the foreign producers and dealers, and being unable to procure in this country an adequate supply. By a calculation the natural increase of 5,000 ewes in ten years the enormous number of 386,713. The sales of wethers and ewes (old) made from time to time during this period, amount to $643,000, allowance being made for selling all the wethers, and 10,000 old ewes the seventh year; 37,715 the eighth year, and 39,928 the ninth year. The fleece, counting from the second year, (the first year's being valueless) amounts in nine years to 951,162 pounds. Its value, estimated low, at 60 cents per pound for the second, third and fourth years; at 80 cents for the fifth; sixth and seventh years; and at $1 for the eighth, ninth and tenth years, amounts to a total of $877,959.40. Sum up these results and we have the following:

Value wethers and ewes sold	$643,000 00
Value wool sold	877,959 40
Value stock on hand tenth year, (75,000 ewes at $10 each)	750,000 00
Grand total	$2,270,959 40

Liberal margin has here been allowed for expenses, losses, and all reasonable contingencies first, by throwing off 25 per cent. of the natural increase; second, by deducting from the count the 5,000 common goats to start with; and the third, by making low estimates of sales of fleece and stock. The increase of the Angora is never less than 100 per cent, often reaching to 150 per cent. The ewes bear when one year of age, and when the practice of "breeding to points" is carefully pursued, each succeeding generation improves in quality and increases in value in proportion to grade. Hence, by retaining all the females as long as they continue good breeders, and marketing only the males, the ranchero gets the benefit of an increase which, in a few years, attain an apparently fabulous figure.—*C., in Colorado Agriculturalist.*

A Beautiful Industrial Art.

One of the most beautiful productions for which Birmingham has long been celebrated, and to rival which other parties have always unsuccessfully put forth their endeavors, is the japanned ware—baths of all sorts, trays, pails, toilet-sets, and a great variety of other articles known and admired in every part of the world. According to an account now given of some of the processes which pertain to this manufacture in that place, the iron, on being formed into the required shape and size, is rubbed with a peculiar kind of stone until it becomes smooth; it is then handed to a woman, who lays on one or two thick coats of color mixed with varnish, and places the tray in a stove to dry; after which it is varnished three or four times, and again thoroughly dried; then rubbed, smoothed and polished, and prepared to be handed to the printers' room, where it is ornamented according to the design intended.

This last-named operation appears to be decidedly unique and ingenious. The design is engraved upon a copper plate, and the impression is taken by rubbing into the cavities of the engraving an oily composition, which adheres, in the form of the design, to the paper pressed upon it. The printed paper is laid upon the tray and rubbed with flannel, so that the oily substance adheres to it. The paper is now lifted off, and gold, silver and bronze dust plentifully scattered upon the mixture as it stands in the tray. This is rubbed with flannel, and all the details of the design are thus brought out, and as accurately transferred as if the tray itself had been subjected to the ordinary process of printing from the copper plate. The colors are then made fast by varnishing and drying, smoothed by rubbing with rottenstone, and finally polished with the naked hand.

It is stated that the females employed in polishing the best goods never engage in the regular household duties, such as scouring the floor, or even handling the broom, lest their hands should lose the soft touch so necessary to give the last beautiful touch these attractive articles. —*The Cabinet Maker.*

Peanut Oil-Cake as a Food for Animals.

It has long been known that the greatest value of the ground-nut (*Arachis hypogea,*) or peanut, as it is familiarly called, is in the oil which it contains. Analyses made in this Department have demonstrated that the nut, under favorable circumstances of cultivation, will yield at least 16 per cent. of oil; and it has been found that for alimentary, mechanical, and illuminating purposes, the oil is scarcely inferior to that of the almond, the olive, or the linseed. The amount of oil varies according to latitude. The nut is grown in almost all the warm climates of the world, and especially in Algeria, where it is indigenous, and where the plant appears to thrive more vigorously than elsewhere, and to afford much more oil. While in Virginia, for instance, the average yield of oil is 16 per cent., the Algerian growth is said to afford 25 to 27 per cent. It has been shown by experience in this country, in different sections of which the nut has been cultivated, that under judicious management it will produce from 50 to 75 bushels to the acre. But although it is susceptible of easy and cheap cultivation, and is grown in this country in very large quantities, the chief value of the production is almost entirely overlooked, and the crop is monopolized by the fruit-stands at the corners of our city streets. In the East Indies, and in the south of France and the countries of Mediterranean Europe and Africa, the nut is grown almost exclusively for the sake of the oil; the seed is pressed to obtain the oil, and the pressed cake, or marc, is used as a food for cattle, and in some instances is exported to Great Britain to be employed as a manure.

A series of experiments in feeding cattle with peanut oil-cake has recently been made upon the government experimental farm in Madras, British India. The official report of these experiments is both interesting and instructive. The experiments were peculiarly satisfactory in respect to draught cattle, which were found to thrive much better upon the peanut oil-cake than upon the ordinary food, and at a reduction of one-half in the cost of feeding. The cake is steeped before being fed to the cattle, and four pounds per head are allowed daily.

The following analysis of the peanut oil-cake will show its properties:

	Per cent.
Moisture	10.80
Oil	8.12
Albuminous or flesh-forming compounds	28.62
Mucilage, gum, etc	18 86
Cellular fibre	29.09
Ash	4.51
Total	100.00

For the sake of comparison the following analysis of the linseed oil-cake is given.

	Per cent.
Moisture	10.67
Oil	12.87
Albuminous or flesh-forming compounds	28.12
Mucilage, gum, etc	27.01
Cellular fibre	14.11
Ash	7.22
Total	100.00

It will thus be seen that the peanut oil-cake is very little inferior to the linseed oil-cake, the cost of which is five-fold that of the peanut. As a food for horses the peanut oil-cake was found by these experiments extremely valuable, the feeding during two years being attended with the most gratifying results. Experiments were also made to ascertain the relative values of peanut oil-cake and Indian corn as food for fattening pigs, and to ascertain the cost of producing a pound of pork. Four pigs of equal age and size were selected for an experiment, two being fed upon four pounds of peanut oil-cake daily in addition to the ordinary food, and two upon four pounds of corn instead of the oil-cake. In eight weeks the former had increased in weight 99 pounds and the latter 89 pounds; from which it appeared that the peanut oil-cake is more valuable than Indian corn for producing pork. The cost of the corn was about double that of the oil-cake; that is to say, the corn averaged about one cent a pound, and the oil-cake half a cent.—*Report of Department for September.*

The Art of Inventing.

Many persons suppose that the capability of inventing is wholly a natural gift, but such is not the case. It is just as much an acquired art as any other profession. In order to insure success as an inventor, it is necessary for the student to go through a school of inventive studies and to confine his productions to a particular class. If a mechanical inventor, he must understand mechanical movements and powers, as well as metals and timber and how to work them. He must study the relation between causes and results, he must acquire a knowledge of drafting, and must learn what has been accomplished in his particular line.

It is true that some wonderful inventions have been made by persons entirely unacquainted with the particular branch in which they were working, but such instances are rare. The more extended the knowledge which the artisan possesses, the more likely is he to make a valuable improvement. But constant and unceasing study is entirely unnecessary; in fact it tires out the mind, which, like the fatigued body, must have rest before it can successfully pursue its laborious journey. If, therefore, the mind becomes weary and confused, it is better to drop the subject for a time and take it up again.

Nearly twenty years ago, in the city of Boston, a friend of ours, still living, invited us to accompany him to see a model of an invention. We went with him, and a very enthusiastic young man showed us a beautifully made model, mostly of finished brass, of a ship with a revolving mast geared into the paddle wheels in order to propel his ship against the wind. He said that he took the idea from a feed mill, run by wind, near Charlestown bridge. "But," said our friend, "that feed mill is on *terra firma;* but where will your ship be going when afloat? With the wind blowing against the revolving sails, you will have to cast anchor in order to keep it from blowing backwards." He had never studied cause and effect; and he told us that he had spent six months and nearly $2,000 in trying to accomplish an impossibility. Years of precious time and thousands of dollars are annually lost in a similar manner. Many hundreds of men have labored at models and expected to make fortunes by running an overshot or breast wheel in a dead pond by causing it to pump up its own water, and by similar impossibilities.

The educated inventor will never run into such wild cat schemes. But as he becomes more and more acquainted with the arts and sciences, he will find that every step forward must be directed to a practical result; and at last when his life's work is done, he will see that all he has gathered will be only a drop from the ocean of Science, which lies still spread before mankind for other minds than his to continue to explore.—*Scientific American.*