

Agriculture.

DUCKS WITHOUT WATER.

A correspondent of the Country Gentleman says: The question is often asked, can ducks be reared with profit, without the accommodation of a pond? I answer, they can. I have raised the Rouens two years without any water, except what was given them. When young I used a common pie tin, and as they grew, a milk pan was placed in its stead, thus saving any from being drowned. I have had good success, seldom losing one. Rouens, under ordinary circumstances, will be found as profitable as any variety, for the following reasons: First, the rapidity with which the young ducks grow. It is not uncommon to see them in full feather, and weighing four pounds when eight or ten weeks old, yielding very fine flesh for the table, which makes them valuable for early market. Second, when full grown they often weigh 9 to 10 lbs. each. Third, as egg producers they rank the best, laying in the fall a good number of eggs. Then with a little cessation in mid-winter, they recommence in spring when other varieties have only just begun. They make a nest and are zealous of keeping it up, avoiding the trouble of shutting them up at night. Fourth, the eggs are large and rich, making them valuable for culinary purposes. Fifth, they are the most determined stay-at-home birds imaginable, seldom if ever rambling beyond sight of home, never troubling the neighbours' crops or giving you travelling nights to bring them home. This breed is highly esteemed by breeders for their size and deliciousness of flesh. It may be imagined from their large size, that they must consume more food than our smaller varieties. On the contrary, they are remarkable easy keepers, and require less food than the common duck.

HORSE RADISH.—James Barnes, in the London Garden, gives the following account of a horse-radish bed: "What brought horse-radish into greatest notoriety was, however, the following circumstance. Between fifty and sixty years ago, in Gray's Inn Lane, was a vast mountain of years and years accumulated London cinder-dust, filth and garbage; yes, a real mountain of it; and amongst its vast and varied accumulations were immense plants of horse-radish, growing right up through the whole, the produce probably of crowns cast from sculleries to the dust-bin. Here it found a favorable site; and as the mountain increased in size and height, so did the horse-radish, with its great strength and spear-headed crown, continue to thrust itself through it. Enough at least did so to create astonishment in those days, and to bring the horse-radish into prominent notice; for when this mountain of refuse was removed, the immense length and size of the horse-radish roots were discovered. We had no horticultural journals in those days; but the Times and the few papers we had, prominently adverted to this wonderful horse-radish, and related how and where it grew. It was, indeed, a real phenomenon, the leaves being as large and thick as those of a banana, while its roots were as large and long as scaffold poles. How many hundred weight a root of it weighed, it would be difficult to guess, yet one root, as large as a farm yard gate post, was dug out and exhibited. The publicity thus given to the matter and the extraordinary perfection the roots attained in so rich a pasture, proved how simply horse-radish can be grown, and induced everybody to cultivate it in earnest."

GETTING PLENTY OF FRESH EGGS.—Thirty years ago I was troubled just as my neighbor now is; I fed my hens plenty of corn and got but few eggs. I reasoned upon the matter, and happened to think that the constituent parts of milk and the white of eggs were much alike. Now it has long been known to milkmen that wheat middlings and bran are about the best of any food to make a cow give milk; why not, then, the best to make hens lay eggs? I tried it, and since then have had no trouble. My mode of preparing the feed is to mix about five parts of bran with one of middlings. In the morning I wet up with water about four quarts of the mixture in a large tin pan, taking pains to have it dry, though all damp. This I set in a warm sunny spot, south of their shed, and they walk up, take a few dips, don't seem to fancy it like corn, and start off on a short hunt for something

better, but always coming around in a short time for a few more dips from the dish of bran. There is little time during the whole day but what one or more are standing by the pan and helping themselves. I am careful to mix for them just as much as they will consume during the day. At night, just before they repair to roost, I usually throw them about a pint of shelled corn, well scattered, so that each one can get but a few kernels. If your hens don't incline to eat this feed at first, sprinkle a little Indian meal on it. I would like all who complain of not getting eggs to try my plan, and I think they will never be sorry.

A four-hundred acre sugar-beet field has been seen, recently, by the editor of the Pacific Rural Press, at Davisville, Yolo County, Cal. The beets were in rows, about fifteen to eighteen inches apart, and were up four or five inches. Twenty-five Chinamen, with hoes, were "sweeping in broad platoon to and fro across the field, extirpating the few small weeds that had made their appearance since planting." These beets belong to the Sacramento Valley Beet Sugar Company, which has 1,600 acres of them under cultivation.

The Journal of Horticulture says that a French farmer has discovered that the use of tan is an efficient preventive against the potato disease. For three years he has introduced a small quantity of the residue of the bark used in tanning into each hole on planting his potato crop, and each time he has been completely successful in preserving his fields from the annoying disease.

The ordinary mode of churning butter in Chili is to put the milk in a skin—usually a dog's skin, tie it on a donkey, mount on him a boy with rowels to his spurs about the length of the animal's ears, and then run him four mile beats.

Scientific.

MARS.

A brief sketch of the topography of Mars cannot be uninteresting. An icy cap surrounds each pole, varying in extent according to the progress of the season; and around each of these polar caps extends a polar sea. Four great continents occupy the equatorial regions; between two of them flows the celebrated Hour-Glass Sea; while oceans, straits, and inlets separate the continents and enclose the island, much as on the surface of our planet. But if the correspondence is marked between the two planets, the divergence is no less so. A noticeable feature in Mars is the prevalence of winding inlets and bottle-necked seas. One of these, called Huggin's Inlet, is a long, forked stream, too wide to be compared to a terrestrial river, which extends for three thousand miles from its two-forked commencement to the point where it flows into the sea. There are two seas so closely resembling each other that, if it were not for their enormous dimensions, we might fancy the evidence of artificial construction. There are also two flask shaped seas, which have the same marked similarity.

On the earth the oceans are three times as extensive as the continents. On Mars the proportion of land and water is about equal, and so strangely mingled that a traveller could visit every part of the planet without leaving the element on which he commenced his journey; or by coasting along oceans, circumnavigating islands, passing through open and bottle-necked seas, and sailing through straits, he could traverse a coast line of thirty thousand miles, always in sight of land, and generally with a view of land on both sides. We can easily see a reason for this labyrinthian arrangement and its adaptation to the necessities of the planet. The most careful examinations have failed to detect a satellite; therefore, tides must be comparatively unknown, for the effect of the sun in producing them would be almost unappreciable. Since the solar tide depends on the relations which the planet's diameter bears to its distance from the sun, and our solar tides are very small, with a diameter of eight thousand miles and a distance from the sun of ninety one million five hundred thousand miles, it may readily be seen how little influence the sun can exert on the Martial waters when the diameter of the planet is less than five thousand miles and its distance from the sun one hundred and

fifty million miles. This arrangement of water in Mars would promote a free circulation by evaporation and downfall, while oceans would become stagnant under such conditions of existence.—College Courant.

A NEW DIETETIC.—Dr. Goodman, writing to the British Medical Journal, says that artificial fibrin is an admirable dietetic substance, being unparalleled for lightness and digestibility, and a great delicacy besides. It is obtained by exposing albuminous material to the action of cold water for a time, the hen's egg, from its great abundance, being the most suitable source of the albumen. When the contents of an egg are immersed in cold water for twelve hours or thereabouts, they undergo a chemico-molecular change, becoming solid and insoluble; a change indicated by the opaque and snowy whiteness of the white. The action of heat to the boiling point is now brought into the process, and the fibrin is then ready for use. In cases of deficient nutrition and rejection of food, Dr. Goodman says this artificial fibrin is of the greatest service, as the weakest stomach is able to retain it, and its use appears to promote the appetite for food.

SPICED APPLE TARTS.—Rub stewed or baked apples through a sieve, sweeten them, and add powdered mace and cinnamon sufficient to flavor them. If the apples are not very tart, squeeze in the juice of a lemon. Some persons like the peel of the lemon grated into it. Line-soup dishes with a light crust, double on the rim, and fill them and bake them until the crust is done. Little bars of crust, a quarter of an inch in width, crossed on the top of the tart before it is baked, are ornamental.

CORN STARCH CAKE.—One cup of pulverized sugar, half cup of butter, and stir until it looks like thick cream; one teaspoon soda dissolved in half a teacup of sweet milk; beat the whites of three eggs and put them in with two teaspoonfuls of cream tartar mixed with a teacup of flour; stir and add half a teacup of corn starch; season and bake in a moderately quick oven; frost or not, just as you please.

Resolve to edge in a little reading every day, if it is but a single sentence. If you gain fifteen minutes a day, it will make itself felt at the end of the year.

Joyful news for the Afflicted.

GATES' Life of Man Bitters.

Mrs. Eliza Rhyard, of Annapolis county, in the Province of Nova Scotia, maketh oath and saith that a year ago last September her husband purchased a bottle of Dr. Caleb Gates' eye relief for the purpose of applying it for the cure of sore eyes, and seeing on the label of the bottle that it was recommended for the Piles also with which she had for a long time been most painfully afflicted, and had applied to different doctors in her own neighborhood and had tried various remedies and found no permanent relief, tried it for the piles also and in a very short time was perfectly cured of both complaints by the use of only one small bottle. She had also been subject to very frequent turns of fainting, sometimes as often as three times a day, and having by this time moved into the more immediate neighborhood of Dr. Gates, she commenced taking his Life of Man Bitters and Syrup about the first of May last, and is most happy to say that through the kind Providence and the skill of Dr. Gates she has not had one of her former fainting turns since the month of June last past, and she has frequently taken the Bitters and Syrup for colds, ec., and has invariably found untiring relief in the use of the above medicines.

Sworn to at Middleton, this 3rd day of February, 1873, before me, JAMES WHEELLOCK, J. P. PRICE. Bitters \$1 per bottle; Syrup 50 cents per bottle; Liniment 25 cents per bottle and the ointment 25 cents per box. Address CALEB GATES & CO., Farmington, Wilmot, Annapolis Co. A large number of certificates, similar to the above, have been received and will be published at times for the information of the afflicted and the people generally. AGENTS.—George V. Rand, Wolfville, John Webb, Windsor, J. E. Newcomb, Hantsport, J. L. Cogswell, Kentville, Sheffield & Wickwire, Canning. GENERAL AGENT, JOHN K. BENT, 126 Granville Street, Halifax. July 2.

WHITES' PATENT CUTTING BAR GRINDING GUIDE

For grinding Mowing Machine Knives to a true bevel. Can be attached to any grinding-stone. Agents wanted in Cape Breton, Prince Edward Island and Nova Scotia, or the right to sell and manufacture for any county will be sold. Address, CROSSBY & HICKS, Bridgetown, N. S. Sole owners of the Patent in N. S., C. B., and P. E. Island. May 21. 4ms.

HALIFAX, N. S., JULY 9, 1873. MESSENGER ALMANACK.

JULY, 1873. First Quarter, July 2nd, 6h. 56a. afternoon. Full Moon, " 10th, 2h. 16m. morning. Last Quarter, " 18th, 4h. 43m. afternoon. New Moon, " 24th, 6h. 19m. morning.

Table with columns: Day, SUN. (Rise, Sets, Rises, South, Sets), MOON. (Rise, Sets), High Tide. Rows for days of the month from 1st to 31st.

THE TIDES.—The column of the Moon's Southing gives the time of high water at Parrsboro', Cornwallis, Horton, Hantsport, Windsor, Newport, and Truro. High water at Pictou and Cape Tormentine, 2 hours and 11 minutes later than at Halifax. At Annapolis, St. John, N. B., and Portland Maine, 3 hours and 25 minutes later, and at St. John's, Newfoundland 30 minutes earlier, than at Halifax. At Charlottetown, 2 hours 55 minutes later. At Westport, 2 hours 54 minutes later. At Yarmouth, 2 hours 20 minutes later. FOR THE LENGTH OF THE DAY.—Add 12 hours to the time of the sun's setting, and from the sum subtract the time of rising. FOR THE LENGTH OF THE NIGHT.—Subtract the time of the sun's setting from 12 hours, and to the remainder add the time of rising next morning.

NOTICE.

THE Subscriber offers for Sale his well known Farm, Situate in Wilmot, County of Annapolis, on the North back road, about one half mile east from the Wilmot Spa Springs, and about one and a half miles from the Railroad Station. Said farm contains 125 acres of very valuable land, advantageously divided into Hay, Pasture, and Woodland. The hay and tillage land are under a superior state of cultivation, the pasture is of an excellent quality, and wood lot sufficient to supply a family for generations to come. On the Farm is a comfortable House of Size and accommodations to suit a large family. Also 2 good Barns, with other convenient out buildings all in good state of repair. An abundant supply of water is carried into the House by pipes from a never failing Spring, and also taken for the use of the barn.

There are about 100 grafted apple trees producing from 60 to 200 barrels annually. This property is so well known that further particulars are unnecessary. The terms of payment will be made easy, only a small proportion will be required down, with good and approved security for the remainder. The stock and farming utensils can be had by a purchaser of the farm if required. For further particulars apply to the owner on the premises. GEORGE BALLENTINE, Wilmot, County of Annapolis, January 22nd, 1873. Jan. 29.



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UPRIGHT, OBLIQUE, SQUARE, Etc. With all the latest improvements, manufactured by the subscribers, and especially adapted to this climate. An assortment of THE "SILVER TONGUE." A very fine toned CABINET ORGAN, by Carhart and Needham, N. Y. The above are offered to a discriminating public at moderate prices, WM. FRASER & SONS, June 1. 70 & 72 Barrington St.

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INTERCOLONIAL RAILWAY.

1873—Summer Arrangements—1873 COMMENCING ON MONDAY, 26th May, 1873.

- No. 1. (Through Passenger Express) will leave Halifax at 7.30 a.m., and be due in St. John at 8.20 p.m. This train will stop between Halifax and Truro only at Windsor Junction and Shubenacadie; and (between Painsce and St. John) only at Booking Stations, except where it may be necessary to cross other trains or to put down passengers who may have got on board at Painsce and stations East and South of that place. No. 2. (Through Passenger Express) will leave St. John at 8.50 a.m. This train will stop between St. John and Painsce only at Hampton, Sun-sex, Petitcodiac and Moncton; and (between Truro and Halifax) at Shubenacadie and Windsor Junction, except where it may be necessary to cross trains or to put down passengers who may have got on board at stations North and West of Truro. Nos. 3 and 4. (Picton Passenger Accommodation) will leave Halifax at 6.15 a.m. and be due at Picton at 12.15 p.m. No. 4 and 6. (Shediac Passenger Accommodation) will leave St. John at 7 a.m. and be due at point DuChene at 12.15 p.m. Nos. 7 and 9. (Freight and Passenger Accommodation) will leave Halifax at 11.30 a.m., and be due at Picton at 8.15 p.m. Nos. 8 and 10. (Freight and Passenger Accommodation) will leave St. John at 10.50 a.m. and be due at Point DuChene at 7.25 p.m. No. 11. (Truro Freight) will leave Halifax at 3.30 p.m., and be due at Truro at 9.10 p.m. No. 12. (Passenger Accommodation) will leave Painsce at 4.20 p.m., and be due at Point DuChene at 5.00 p.m. No. 13. (Truro Passenger Accommodation) will leave Halifax at 5.15 p.m., and be due at Truro at 8.15 p.m. No. 14. (Passenger Accommodation) will leave St. John at 3.00 p.m., and be due at Hampton at 3.10 p.m. No. 15, 17 and 19. (W. & A. R.) will leave Halifax for Windsor Junction at 8.09 and 8.45 a.m., and 3.00 p.m. No. 16. (Petitcodiac Freight) will leave St. John at 2.45 p.m., and be due at Petitcodiac at 8 p.m. No. 18. (Sussex Passenger Accommodation) will leave St. John at 4.40 p.m., and be due at Sussex at 6.40 p.m. No. 20. (Truro Passenger Accommodation) will leave Truro at 6.00 a.m., and be due in Halifax at 9.15 a.m. No. 21. (Sussex Passenger Accommodation) will leave Sussex at 7 a.m., and be due in St. John at 9.00 a.m. No. 22. (Truro Freight) will leave Truro at 6.45 a.m. and be due in Halifax at 1.20 p.m. Nos. 23 and 25. (Shediac Passenger Accommodation) will leave Point DuChene at 6.50 a.m., and be due in St. John at 12 noon. No. 24 and 26. (Freight and Passenger accommodation) will leave Pictou at 6.00 a.m., and be due in Halifax at 2.25 p.m. No. 27. (Petitcodiac Freight) will leave Petitcodiac 7.00 a.m. and be due in St. John at 1.30 p.m. Nos. 28 and 30. (Picton Passenger Accommodation) will leave Picton at 1.45 p.m. and be due in Halifax at 7.30 p.m. No. 29. (Passenger Accommodation) will leave Hampton at 5.45 p.m. and be due in St. John at 8.55 p.m. Nos. 31 and 33. (Shediac Passenger and Freight Accommodation) will leave Pt. DuChene at 10.30 a.m. and be due in St. John at 7.45 p.m. Nos. 32, 34 and 36. (W. & A. R.) will be due in Halifax at 11.00 a.m., 6.45 p.m. and 8.25 p.m. No. 35. (Passenger Accommodation) will leave Point DuChene at 3.20 p.m. and be due at Painsce at 4 p.m. Nos. 37 and 39. (Truro and Moncton Freight Passenger Accommodation), will leave Truro at 9.30 p.m. and be due at Moncton at 8.10 a.m. Nos. 38 and 40. (Moncton and Truro Freight and Passenger Accommodation), will leave Moncton at 6.45 p.m. and be due at Truro at 5.30 a.m. LEWIS CARVELL, General Superintendent. RAILWAY OFFICE, Moncton, 19th May, 1873. May 21.

FANCY SALE AT ANTIGONISH.

THE Ladies of the Antigonish Baptist Sewing-Circle intend holding a Sale of Fancy Articles early in the ensuing Summer for the purpose of aiding in the erection of A NEW BAPTIST MEETING HOUSE. Contributions to the Fancy or Cash department, will be most thankfully received by either of the following Committee. Mrs. F. Cunningham, Mrs. T. M. King, Mrs. C. B. Whidden, Mrs. I. F. Robb, Mrs. J. B. McQuillin, Antigonish. Miss Maggie Hill, Sydney, Miss Fannie King, Truro, Mrs. Reuben Hart, Halifax. Antigonish, March 22nd, 1873. April 2.

THE CHRISTIAN MESSENGER

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