

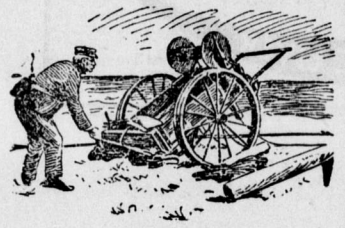
PERLS OF THE LIFE-SAVERS

The Brave Coast Guards Who Patrol the Shore While the Storm Rages.



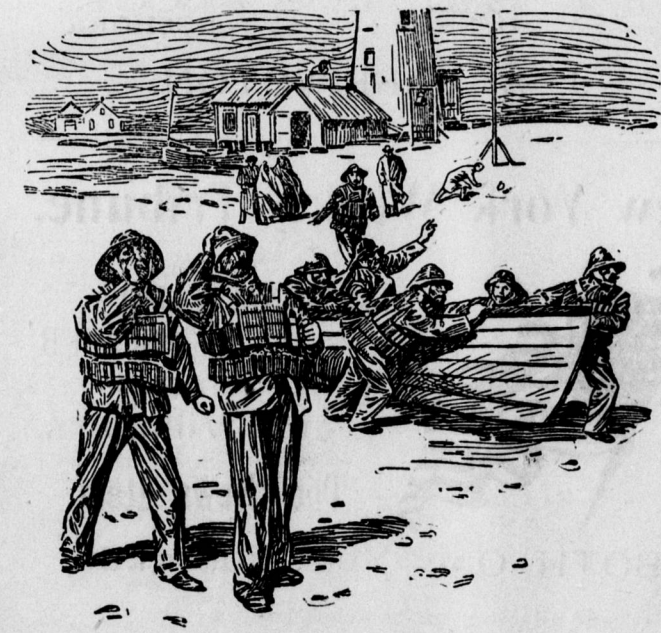
In the year 1871 the Life-Saving Service of the United States was founded by Sumner I. Kimball, at that time head of the Revenue Marine Bureau of the Treasury Department. He secured appropriations from Congress, introduced scientific methods of saving lives and ships, drilled the men, built stations at points within a few miles of one another from Maine to Florida, and along the shores of the Great Lakes, and effected such improvements that he got the entire country heartily at his back. The amount of property and the number of lives saved, from the outset, was most impressive. In 1874 he prepared a bill to extend the work, to bestow medals upon deserving life-savers, to collect and tabulate statistics of marine disasters, and to determine what points on the coast were especially liable to maritime calamities. He caused life-boats to be selected for particular regions with a view to their fitness for meeting the conditions there existing; he investigated the merits of various inventions in the way of guns for shooting lines to wrecked vessels, and of life-cars and other devices for bringing persons from wrecks to the shore. Finally, the Bureau was separated from the Treasury Department, and set up in business for itself.

Our Life-Saving Service is now unique among nations. The greater part of our coast being practically uninhabited and deserted, and in many places very dangerous to navigators, there was need that it should be sedulously watched. The entire



FIRING THE LIFE-LINE.

stretch of coasts, about ten thousand miles in extent, is now patrolled daily during the stormy seasons, and no wreck can occur without being promptly reported, and all possible means taken to minimize loss. The men are perhaps the most thoroughly drilled, intelligent and efficient body in the world, and constant inspection and encouragement of the worthy maintain them at this high level. The station buildings are commodious and well-kept, and stored with whatever can be of use in the service, or productive of benefit in educating the men. The latter are paid regular salaries by the Government, and in case of their disablement or death, pensions are pro-



LAUNCHING THE LIFE-BOAT.

vided for them or their families. Politics are kept rigorously out of the Bureau; and altogether, its history and statistics are perhaps more gratifying to the national pride and pleasure than those of any other bureau appertaining to our Government. Mr. Kimball has been the right man in the right place, and the life-savers themselves have magnificently supported him by their achievements in the face of tremendous perils and difficulties. Collier's Weekly has a striking article on the Life-Saving Service from which the following is taken: The venturesome mariner may lay a straight course past Iceland and Spitzbergen northward till he brings up against the eternal ice, by steering due northeast from anywhere on the coast of Eastern Massachusetts, and keeping away enough to clear the projecting headlands of Nova Scotia and Newfoundland. In other words, when the northeast wind arises in its might and

goes forth from its lair in the Arctic seeking whom it may devour, the first land that it strikes squarely is Cape Cod and the first large seaport that lies in its track is Boston.

The meteorologists tell us that most of the destructive cyclone storms originate in the Gulf of Mexico or elsewhere in the South Atlantic, and in truth the warnings of approaching



BEACHCOMBERS AT WORK ON THE SALVAGE.

hurricanes at all seasons confirm the truth of this theory. But be that as it may, when the northeast wind gets an unobstructed sweep of some thousands of miles down the wide stretch of ocean that leads the Gulf Stream northward it has a chance to develop a degree of violence that it can hardly attain where its course is interrupted by outlying islands and reefs.

During the comparatively calm and peaceful voyage that most travelers by sea achieve from New York or Boston to London, Liverpool or Southampton they are told that when the ship crosses a tract known to sailors as "the hole in the wall" their seamanship is likely to be tested. The reason for this is that until that point is reached the southward sweep of wind and wave is more or less modified by submerged shallows such as the Grand Banks and other ridges that are revealed by deep-sea soundings. It is not surprising, therefore, that the accumulated force of a protracted winter's gale is something terrific when it breaks on the sandy headland that forms the extremity of Cape Cod.

On one of the high sand dunes that form this promontory stands the Highland Light, looking out to sea, and from sunset to sunrise, year in and year out, sending its rays over leagues of restless ocean to give warning of the dangerous sand-bars that are formed by waves and current all along this coast.

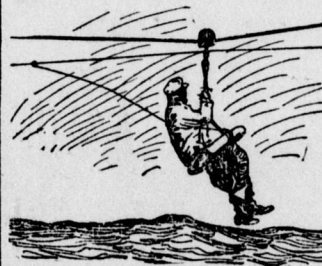
The Government observers of ocean phenomena, in their forecasts of North Atlantic weather for the winter months, habitually predict gales of greater or less severity at intervals of

the flag-officer of a squadron down to the skipper of a coasting sloop, to cherish a certain contempt for everything that savors of meteorological science or official interference.

Lightships are anchored with an eye to violent conditions of tempest, their mooring chains are so huge and heavy that to lift one of the links requires something of an effort to an ordinary man. In spite of all, this phenomenal gale tore these lightships from moorings, breaking the huge chain cables and sending them adrift to work their way under sail to such harbor as Providence might vouchsafe. One of them, the Pollock Rip lightship, was driven away down toward the Delaware Capes, and was at last picked up and towed to a place of safety by the Belgian steamer Switzer-

land. As this is written revenue vessels are out looking for the other lightships that are adrift, and, as still other storms have intervened between then and now, the question of finding them becomes more and more doubtful.

To recount even a few of the incidents and adventures and daring deeds of rescue performed alike by men of the Life-Saving Service and by volunteers who manned lifeboats and went to the rescue of crews on board foundering vessels that they met on the high seas would take far more space than is at my disposal. Whenever human life was imperiled men were ready with daring hearts and skillful hands to rescue their fellows



SAVED BY THE BREECHES BUOY.

without hope or prospect of reward, and while instances have been reported of alleged plundering of wrecked persons and property along shore, the weight of evidence, on the side of courage and faithful discharge of duty, is largely in the lead. Heaven grant that the interval may be long before such another storm descends from the Northern Ocean!

It Roused His Ambition. The fat boarder groaned softly as he watched the landlady hand around the cold chicken. He saw his finish. It would either be a section of the back, or a leg joint. He wasn't much of a favorite with the landlady.

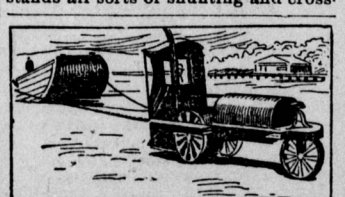
"I am not," he sorrowfully remarked, "a man of ambitious longings. I care nothing for the cares of state, or the applause of thousands. But it never struck me so forcibly as it does this evening that I would like to be President."

"And why this evening?" inquired the unsuspecting landlady.

"Because the President," said the fat boarder with an unctuous fervor, "because the President, whenever he dines—and it's an old and beautiful custom—is invariably waited upon first."

And he took his section of back with a heavy sigh.—Cleveland Plain Dealer.

The Passing of the Tow-Path Mule. The speediest solution of the canal boat difficulty is offered by M. Salliot, of Dijon, France, who has invented an electric traction engine which will run on any towpath without rails. The motive power is furnished by an overhead trolley wire. The towing cable is fastened to the back of the engine, and in the cab sits a man who does the steering and controls the current. The locomotive is perfectly stable, and stands all sorts of shunting and crossing. Experiments made in Paris were so successful that the problem of towing canalboats seemed to be solved.



TOWING CANALBOATS BY ELECTRICITY.

This photograph, taken near one of the European capitals, shows how the good, old, sure-footed, long-eared friend of our fathers has been supplanted.

EARLY CHRISTIAN COINS.

Recent Find of Alleged Messianic Coin in Paris Has Aroused Numismatists.

A holy coin found by Boyer d'AGEN in Paris, and alleged to be a specimen of the Messianic coin which was in use among the Christians in Jerusalem during the first century after the



birth of Christ, is stirring up considerable discussion in England and on the continent. The coin bears a portrait of the Savior, with the name of Jesus in Hebrew characters. On the reverse, in Hebrew characters, is this motto: "The Messiah, the King, will come in peace. He is the incarnate living light of men."

The claim that this coin was in circulation in the first century after Christ is disputed in England, where George Mackey, a noted coin collector, shows almost an exact duplicate of the Parisian coin. This coin was unearthed in 1812 by a peasant's daughter who was helping her father dig potatoes in Ireland. On one side is the head of the Savior, with a Hebrew inscription as shown in the illustration, and on the reverse a Hebrew inscription reading: "The Messiah has reigned. He came in peace, and being made the light of man He lives."

Walter Davis, member of the London Numismatic Society, has discovered that a similar coin is described in Rev. R. Walsh's "Essay on Ancient Coins, Medals and Gems," and according to this authority the character at the back of the head is the Hebrew letter "Aleph," and the characters in front of the face form the Jewish name Jesus.

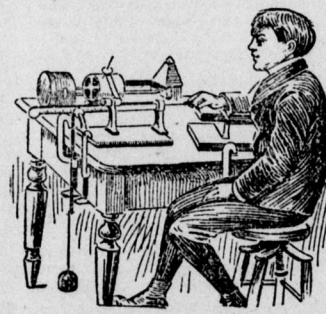
Still another holy coin, one of silver and somewhat larger than those mentioned, was submitted some time ago to the authorities at the British Museum. There is no such coin there, but the verdict passed on the coin submitted was "Italian coin seventeenth century. Son of Jesse, the Messiah, was crucified on the sixth day and taken down on the sixth day. He lived."

The owner of this coin disputes the great age of any of these so-called holy coins.

Scientific Child-Study in Chicago Schools. Scientific child study has commenced in the public schools of Chicago, and while as yet it has reached no definite stage, a beginning has been made at least.

The most notable test now being made is that through the medium of the ergograph, which is the invention of Professor A. Mosso, of Italy, and is for the purpose of determining the stored up energy of the pupil.

Apart from the ergograph tests there are others, all of which are deemed essential. In the first place, the pupil is weighed, then his height is carefully taken, both standing and sitting.



EXAMINING A SCHOOL PUPIL BY MEANS OF THE ERGOGRAPH.

Then comes the ergograph. It consists of two main parts, one of which is a cylinder, revolved by means of clockwork, about which a paper strip is pasted. The working portion of the second part is a small sliding carriage, to which is attached a stylographic pen, the point of which rests upon the paper covered cylinder. To one end of this carriage is attached a weight, and to the other a cord made of twisted wire.

The arm of the pupil to be examined is strapped into a rest, the latter having no connection with the ergograph, however, so that it is possible to move only the fingers. The child's second finger is then hooked into a loop in the wire cord, and the pupil is required to work the finger back and forth in time with a metronome, a contrivance for marking time. This moves the carriage and the pen attached back and forth, and on the paper of the cylinder, which has been set into a barely perceptible motion, the pen records an unbroken line something like the teeth of a saw. As the finger of the pupil weakens from fatigue the distance he is able to pull the carriage forward grows shorter and shorter until he cannot move it at all, and consequently the mark of the pen on the paper over the cylinder becomes almost perfectly straight.

Now, the principle upon which the operation of the ergograph is based is that any set of muscles is an index to the general condition of the body.

Massachusetts is caring for 500 epileptics of all ages from four to seventy.

FOR FARM AND GARDEN.

To Avoid Weevilly Seed Pans.

A very simple as well as satisfactory way for separating weevilly peas from the sound ones is to place the seed in a solution of salt and water made of a sufficient strength that the sound peas will sink and the weevilly ones float. The injured grain at the top may be washed and fed to the stock while the sound seed is sown. This assures an even catch—to a certain extent—and, better yet, the weevilly peas are not even wasted.

Currants for Profit.

There is no kind of small fruit that is so sure a crop if kept from the worm as the currant. It also generally sells at a good price, with the advantage to the grower that the currants will remain on the bushes two or three weeks, not only without injury, but each day growing better after they are colored. This may not altogether prevent a glut in the market, but it at least gives the currant grower more time in which to market his fruit. The only drawback to currant growing is the currant worm, but this is so easily killed by timely applications of hellebore powder that it is really an advantage to the grower who uses it in time, as it destroys the currants of so many others who would otherwise be his competitors. There is nothing usually to be made in what everybody can produce very easily.

Waste of Soil by Blowing.

It is always a loss to leave soil naked through the winter, especially if the surface soil is friable. Unless snow comes as a covering, much of it will be blown into adjoining fields. Often when snow comes it will be wind swept into banks behind fences on its leeward side, and so soon as the banks are formed the snow will be darkened by clouds of fine dust, which is deposited on its surface. This wind-blown soil is always extremely rich, as is shown by the quicker growth and darker green of the grass that grows up after the bank has melted in spring. Always the land on the lee side of fields that have been much and long plowed is richer near the fence on the leeward side than it is nearer the center of the field. For this reason, when plowing, turn the furrows as much as possible from the fence towards the center of the field. Doubtless there is much blowing of surface dirt in summer showers, though it is not so plain to the sight as it is when the dark rim lies on top of a white bank of snow.

Fertilizing Orchards.

There are not many farmers who fully appreciate the value of fertilizing an orchard, yet this is really necessary—in fact just as much so as in fertilizing any other crop—for the trees greatly need the elements contained in the fertilizer, especially the potash, in order to grow and mature a crop.

Here are a few figures which might illustrate: A crop of wheat of twenty bushels to the acre removes from the soil of each acre in grain and straw about twenty-nine pounds of nitrogen, nine pounds of phosphoric acid and five pounds of potash.

To compare, we will allow each acre forty apple trees. These will remove from the soil in maturing the crop about thirty-two pounds of nitrogen, eight pounds of phosphoric acid and forty-five pounds of potash. From this it can be readily seen how much greater is the necessity of maturing for apples than for wheat, and especially in supplying the potash.

If the real reason for applying fertilizers is to stop soil exhaustion—which is certainly true—farmers have no excuse for not looking into the matter of orchard fertilizing, and when they finally do find this out, the old excuse of "This was a good fruit country once, but that day has gone by," will be a thing of the past, and it is just this that ought to have happened years ago.

The Care of Lambs.

Lambs should have grain from the time they are ten weeks old till the following spring. A trough can be set with oats in it outside of the pasture fence, near the watering place, with opening in the fence for the lambs to get to it. They will then learn to eat by the time they are four months old, at which time they should be weaned; it is better for both mother and lamb. In weaning give them the best they can eat, and plenty of good water. If you have a cornfield adjoining your pasture you will find it a good thing to open the fence and let them also have range to it. They will do no harm, and will eat many of the weeds and lower leaves of the corn. They should be kept in that way until they are put in winter quarters, then they should have from half a pint to a pint equally of shelled corn and oats per day, owing to the size and breed of the sheep, with all they can eat of good hay. In weaning lambs never take them from the mothers, but always take the mothers from the lambs, and leave the lambs in the old pasture for a week at least before moving them to another, if necessary to move at all. A gentle old sheep should be left with the lambs for a leader; it makes them more quiet and gentle. In the spring, as soon as there is enough pasture, turn them out on grass for the summer. You have then a fine bunch of sheep whose fleeces will more than pay for the keeping. They can now be handled like old sheep. There is nothing cheaper and better for sheep than grass, except it may be weeds, of which they eat and destroy many and convert them into good water.

wool and mutton free of charge, but remember they do not thrive or pay on weeds alone.—Farm, Field and Fireside.

The Treatment of a Lawn.

Keeping a lawn in order is not difficult, but it requires attention. By deferring attention until the lawn shows it needs it is one of the most certain ways of insuring a ragged lawn.

Keeping up a lawn is simply a matter of keeping up a good growth of grass. The chief points to keep in mind are to prevent maturity (seed production) and careful feeding. Grass, like other field crops, requires plant food, and as its root system is somewhat shallow, and the soil has little aeration when continually in sod, the plant food supplied must be in a highly available form.

To prevent running to seed the grass must be clipped regularly. In the spring and early summer months, before the sun's rays have reached the fierce heat of midsummer, it is advisable to remove all grass clippings, but during the hot summer months the clippings should be left on the lawn to serve as a mulch. This is especially true for sections subject to a mid-summer drought. The late summer clippings should be left as a winter mulch. In the hot days of midsummer the lawn sprinklers should not be started until late in the afternoon.

Light, sandy soils require more protection from drought than clay soils. On the former the clippings mulch is a very important matter. On very heavy clay soils the clippings mulch recently does more harm than good.

The plant food is the most important point, not only to keep up a solid mat of grass, but also to prevent that vitiation due to insufficient nourishment which with plants as with animals is an inevitable invitation to disease. A lawn requires regularly every year an application of nitrogen, potash and phosphoric acid. All three of these fertilizers are necessary, and an excess of any one or two cannot make up for a deficiency of any one. A fair application, on the basis of one acre, is one bag of muriate of potash and two bags of acid phosphate; that is, 200 pounds of the former and 400 pounds of the latter. These fertilizers should be thoroughly mixed together, and it will be an advantage to mix them with an equal weight of fine, dry earth. The best time to apply is in August or September, broadcast. In the spring, as soon as the green begins to freshen, apply nitrate of soda at the rate of 200 pounds per acre.

The application of the nitrate of soda is an important matter. The fertilizer must be finely pulverized, and mixed with an equal weight of fine, dry earth. To use the nitrate without the previous application of the potash and phosphates is to invite disaster. The grass will be stimulated to a rank growth, which it makes wholly at the expense of its vitality. There is no surer way to destroy a lawn.

In cases of moss growth in spots, due largely to a lack of potash and phosphates, the best treatment is to rake over thoroughly, and apply burnt lime at the rate of two good handfuls to the square yard. Reseed the following spring, and do not fail to use the mineral fertilizer in August.—R. Garwood in American Cultivator.

Practical Dairy Notes.

Salt should always be accessible.

Do not change the feed suddenly.

Clean and thoroughly air stable before milking.

Keep the dairy and stable room in good condition, fresh air and clean.

Do not use within twenty days before calving, nor for three to five days afterward.

Do not move cows faster than a comfortable walk while on the way to place of milking or feeding. No savage dogs.

Provide water in abundance, easy of access and always pure; fresh, but not too cold. Do not use impure pond water.

The milker should wear a clean outer garment, used only when milking, and kept in a clean place at other times.

Feed liberally, and use only fresh, palatable feedstuffs. In no case should decomposed or mouldy material be used.

Do not allow any strong-flavored food like garlic, cabbage and turnips to be eaten, except immediately after milking.

Clean the entire body of the cow daily. If hair in the region of the udder is not easily kept clean it should be clipped.

The milker should be clean in all respects. He should not use tobacco when milking. He should wash and dry his hands before milking.

Never allow the cows to be excited by hard driving, abuse, loud talking or unnecessary disturbance. Do not expose them to cold or storms any length of time.

Promptly remove from the herd any animal suspected of being in bad health, and reject her milk. Never add an animal to the herd until certain it is free from disease, especially tuberculosis.

Black Dog Dainties.

Chickens are sold by the piece in Buenos Ayres. They are dressed before being offered for sale, the only feathers left upon them being those of the tail. The same custom prevails in China as to dogs, where a bit of the dog's hair is always left on the end of the tail, even when the animal is cooked. But this is because the Chinese consider the flesh of black dogs the best, and most certain to put a brave spirit into the body of the eater.