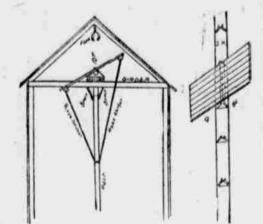


HAY MOW SPREADER.

A Clever Contrivance, Designed by a Wisconsin Man, That Does Away with Hand Labor,

Ahorse fork makes quick work of unloading hay, but unless proper care is taken to tear the forkfuls in pieces and keep the mow nearly level, a great amount of hard work is required to get the hay out. The cut, reproduced from the Northwestern Agriculturist, illustrates a device used by J. B. Cleves, of Wisconsin, which is said to spread the hay about the mow



HAY MOW SPREADER.

with very little hand labor. It consists of a platform 6x8 feet, made of inch boards well cleated at the ends. A piece of 4x6-inch pine 6 feet 8 inches long is nailed across the middle of the platform on the under side. This gross piece is first rounded at both ends, and the remainder half rounded. On a 2-foot scaffolding placed on the girders directly under the fork track the full length of the mow, slotted blocks made of 2x6-inch stuff are nailed at intervals of 6 feet. In these the cross piece under the platform rests and moves freely. It is tilted and held in place by guy ropes, as shown in the cut, and may be moved along the mow as desired. It is necessary to have at least 10 feet between the fork track and center of platform. When a forkful of hay strikes this slanting platform it shoots off to one side and is well scattered instead of falling in a heap under the track .-Rural New Yorker.

RAISING SUGAR BEETS.

It Is by No Means an Easy Task, Especially to the Farmers of the Great West.

The eastern farmer is accustomed to oed crops and to giving intensive culture, but the western farmer has been in the habit for a generation past of raising crops that about take care of themselves, at least till harvest time. For him to attempt to raise a crop of anything that requires constant attention and the keeping down of weeds is a little out of his line. Sugar beets demand a great deal of labor and prompt attention. It does not do to neglect them for some weeks, while cheap help is being waited for. Not only must the weeds be kept down, but the beets themselves must be thinned as soon as they reach the size demanding it. This is a task of good proportions when the beets cover a tenacre field or larger. Labor pays well when used in growing this crop, but it cannot be stinted. That such labor is difficult to get just when the beets need it most all farmers know. The heat of summer and the rains make the weeds grow with surprising rapidity, and it is at this time that labor is employed in other things about the farm. If there come several days of rains that make it difficult to get onto the land so much the worse for the labor problem .- Farmers' Review.

Hogs Delight in Mud Baths,

The hog is a native of hot climates, where his thick skin served as a protection against poisonous snakes and other enemies. Filthy quarters provide a harboring place for mites and vermin, from which they are with difficulty dislodged. The extreme thickness of the hog's skin also tends to retain the body heat too closely when penned up in hot weather, out of reach of his natural protective element-a moist mud bath. The hog that is free to find it well knows how to escape from insect enemies; or if J. D. Henry, in Farm and Home. overheated, into a wallow hole, where he will plaster his entire body in an armor of mud, which when peeled off cleans and invigorates his skin.

Ducks as Farm Scavengers.

Ducks are great farm scavengers, eating much that cannot otherwise be utilized. Vegetable trimmings, potato parings, bread scraps and meat when mixed with a little bran make a dish highly relished. It does not matter how much water there is in It, for they will fish out all the food. They will eat shells and gravel when put in a pail of water, and if any grain is fed throw it into the water also, and let them hunt for it.

PROFITABLE INDUSTRY.

Raising Squabs for Market Is a Pleas ant Occupation and One That Pays Well,

As an industry, squab raising reuires less capital and less work in proportion to the returns than any other business of similar character, says the Washington Post. In the first place, experience has taught that the common pigeons of the streets and alleys are not only the healthiest and best brooders, but that they also produce the best squabs, young birds that are easily fattened and that are strong and hardy. The high priced and fancy tumblers, fantails, duchesses, Antwerps, dragoons, runts, silver dubs, etc., do not compare with the scrub pigeon for the purposes of squab person contemplating entering the business is relieved of the necessity fancy birds.

pigeons an extensive structure is the structure should be warm in winter and not too hot in summer, free from dampness and, if possible, with a southern exposure; also, that it should be free from rats and mice. For this purpose nothing is better than an empty garret, well provided with light and the floor covered with gravel or cinders. All next to that at Santa Catalina Island, eracks should be made tight in order to prevent drafts in winter time. This last condition is much to be dethe winter season, which is the time when they are dearest, and consequently, bring the best prices.

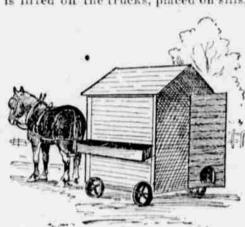
The most interesting and important part of the business is at the time the young are hatched out. Unlike chickens and turkeys, the feeding of the young pigeons is attended to by the parent birds, thus saving the person engaged in squab "first family" young ladies together raising a great deal of trouble which in chicken raising must be attended hammer and nails at the floor of their to. It seems that the pigeon has never reached that stage of thorough domestication where the young birds in demand at good wages in southern have to be fed artificially, but, like California at present.) the wild birds of the forest, the pigeon is one of the few domestic fowls 'soft food," or "pigeon's milk," until they are old enough to shift for themselves. Thus the troublesome part of the work of chicken raising is absent in pigeon culture.

The young birds begin to eat grain in about a week after they are hatched, and then it is that the squab raiser should see to it that they are kept stuffed with grain and never hungry. The parent birds can not be depended on to look after the welfare of their progeny after the "soft food" period has passed. They have a curious habit of stuffing one and starving the other, fighting the starved bird off and feeding its share to the favorite.

PORTABLE AND CHEAP.

For Moving About the Fields in Summer This Poultry Shelter Has No Equal,

This style of house I have found just the thing for moving about the fields in summer. For winter use, it is lifted off the trucks, placed on sills,



MOVABLE POULTRY HOUSE.

and banked up a little, thus securing warmth. The truck wheels and axles are parts of old machinery bought at junk prices. The structure of the house is as simple and cheap as possible, but it pays to clapboard or sheathe the sides if house is to be used for winter. The only special feature is the row of nests so arranged that eggs can be gathered from outside .-

Live Stock Experiments.

As a result of experiments upon live stock Dr. H. P. Armsby, director of the experiment station of Pennsylvania, says that he has found that a steer in the respiration calorimeter loses weight at the rate of four and a half ounces a day when standing up and gains at the rate of six and a half ounces when lying down. This is a confirmation of the theory that quiet and contented animals make best gains. Dr. Armsby says further that the heat generated in fattening animals is more than sufficient for their needs, and that these animals do not need warm stables.

PACIFIC COAST LINE.

It Abounds in Seaside Resorts of Every Description.

Patronized Largely by Wealthy Tourists from the East-Speculation in Beach Property Is Popular,

[Special Los Angeles Letter.] HILE the seaside resorts on the Atlantic coast have a worldwide reputation, less is known concerning those upon our western boundary, although the latter are fast breeds of pigeons, such as pouters, growing in general favor. To the person who does not object to the desert trip, and with whom the expense of the journey cuts no figure, the Pacific shore line rivals the east in attraction. production, so that at the outset the While southern California is in the same latitude as our southern states, the climate is much more even than of spending a large sum of money for in any other portion of the country. The winters are warm, and the sum-As for a place in which to breed mer days much cooler than those of the northern states. A breeze comes not a necessity nor is it even desir- from the ocean-until the middle of the able, the only requisites being that afternoon, the humidity is low, evaporation being very rapid. Nearly the same amount of cover is required at night in summer as in winter.

San Diego excels in the matter of climate. Although it is but little north of the Mexican line, the variation in temperature is small from season to season. Coronado Beach is, probably, the finest for bathing purposes, although Los Angeles people might consider this statement unfair to their sired if squabs are to be raised in favorite Long Beach. During many years visitors were compelled to content themselves with the accommodations (none too good) afforded at San Diego, and ferry across the bay to the beach daily, if they were indisposed to pay the rates charged at the great hotel there. Now, residence at the "tented city" is the popular thing, and it is not uncommon to see a party of with their chaperon tinkering with abode when all the carpenters happen to be busy. (People with trades are

is high enough to be beyond reach of danger in case of tidal waves has excellent drainage facilities and the finest beach along this coast of fine beaches. Two years ago there were few improvements. Now it is a town of homes, on a sort of plateau. The contour of the country protects it from the high winds, while there is always a pleasant breeze. It is one of the places which everybody likes,

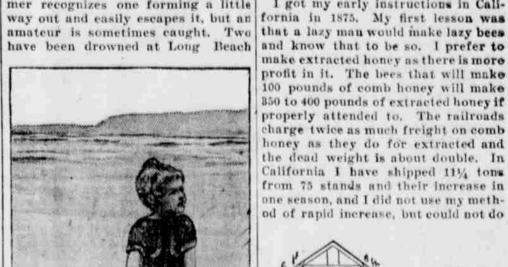
hardly knowing the reason why. But it is only fair to enumerate the disadvantages of each place. There is at Long Beach a kind of undertow called a "rip." An experienced swimmer recognizes one forming a little



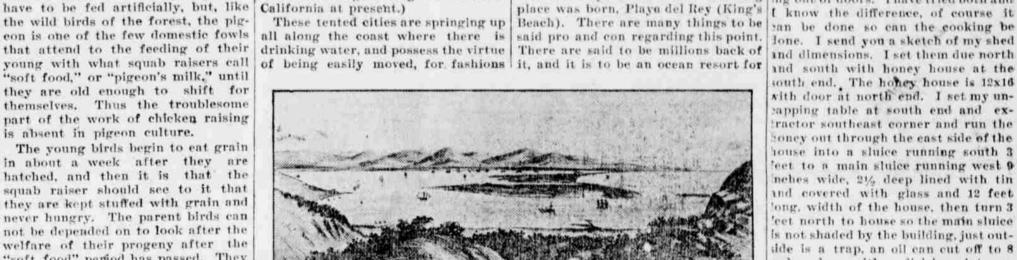
\$ THE PET OF LONG BEACH.

this summer, which, added to other half that in Arizona. Everything here victims, makes a total of nine dur- has small leaves and small flowers exing the last three years. Perhaps this zept plants whose roots can reach is not many when one takes into conbathe there. The citizens are now inlation point, especially near the water front, where in miles of surf one may see bathers enjoying themselves

A few days since a new watering



water, so the bees have to go to so sideration the great number who many more flowers to get their load hat a strong stand will take three stalling a system of life lines and weeks to fill up as much as they would buoys which will reduce the danger to lo in California in one week. Last a minimum. Property at Long Beach | season I took out 6,960 pounds from 54 is expensive, away beyond the specu- stands which is about double what my neighbors got and they thought they did very well. I use sheds and would so more think of working bees without a shed than I would think of cooking out of doors. I have tried both and place was born, Playa del Rey (King's I know the difference, of course it can be done so can the cooking be lone. I send you a sketch of my shed south end. The honey house is 12x16 with door at north end. I set my uncapping table at south end and exractor southeast corner and run the oney out through the east side of the house into a sluice running south 3 eet to a main sluice running west 9 nehes wide, 21/2 deep lined with tin and covered with glass and 12 feet ong, width of the house, then turn 3 cet north to house so the main sluice not shaded by the building, just out ide is a trap, an oil can cut off to 8 nches deep with a division plate extending down to within half an inch of he bottom. The can is soldered to the duice so the top is even with the sides. In the morning I raise the glass, push it back and take out a little cake of wax and any bees, flies ants or any thing that had got into the extractor s stuck fast and put in the sun strainer. Nothing but perfectly pure honey an pass under the plate and rise 5 nches to the spout that goes into



THE LANDLOCKED HARBOR OF SAN DIEGO.

in beaches are very arbitrary and ! change frequently, like all other fashions. A few years ago Redondo was the most popular bathing place. It is beautifully situated, the undertow is not strong, the surf is fine and fishing excellent. It is now patronized by people who want a very quiet time by the sea, for it has been eclipsed by resorts later in favor. The only thing that can be urged against Redondo is the large quantity of pitch or asphalt thrown up by the ocean, but there is more or less of it all along this oil-bearing coast. Santa Monica and Ocean Park, which are practically the same resort, are subject to heavy, cold winds and the water is frequently very rough. Port Los Angeles is nothing more than a long pier built into the sea from Santa Monica, where there is no harbor and where it is often very difficult to make a landing. As a town on the bluffs, Santa Monica is rather pleasant, but the beach below, like Ocean Park, is low, and it is often remarked that it would not require a very large tidal wave to sweep the cottages with their inmates out of existence. The same is true at Terminal Island, which has, however, on the shore side, the advantage of still water bathing for those who dislike going into the surf. This island is more like a peninsula, for the place of attachment to the mainland is seldom covered with water. Terminal Island lies between San Pedro and Long Beach. The former town is located on high bluffs where an extensive view is obtained. Excursion steamers leave this point for Catalina Island, which is so well known to be, par excellence, the finest resort on the coast that it requires no further mention.

The government is adding to the natural advantages of San Pedro, constructing here a rather fine harbor, which is the port for Los Angeles. Long Beach has leaped into favor because it has so very many natural advantages. It is near the city, has two railroads and a street car line, an excellent pavilion and the finest bathhouse south of San Francisco, completed at a cost of \$75,000. The town | sound .- N. Y. Journal.

"millionaires." There is certainly little to attract one at the present time. Two spurs of hills run to the sea very near each other. Upon a high bluff it is proposed to erect a \$200,000 hotel. with building lots around it varying in price from \$1,500 to \$2,000 each, with high-priced building restrictions. At this season the hill is a mass of brown sand. In winter, like all of southern California, it is a beautiful green. Just how the necessary water for household purposes and irrigation of grounds will be supplied, seems to be an open question. What is considered a strong feature of the place is a lake or lagoon, back a few hundred feet from the

property, proper, is limited in extent, with insect powder. Give her a well, and with the millions said to of her feathers before giving her be back of it, may be carried to a satis- the poults, for all vermin powder infactory issue. A part of the prop jures the eyes of little ones if it gets erty consists of the old Ballona ranch, into them. If the weather is dry and it was here that much money was and warm take each poult and rub spent, years ago, trying to construct under the throat a little thick cream, a harbor from the lagoon. But sand and if the wing feathers have started kept drifting in, compelling the aban- out well, rub them also, and put the donment of the enterprise. Trains poults back under the hen until ran there at that boom time, but a few thoroughly dry. Now, don't put years ago the railroad company pulled much on each part. Don't grease up their tracks. Those who attended with anything else if you have the the recent sale (a new boom) had to cream, and that must be thick. If stop at Alla (a signboard on the prai- you have none, then a very little rie) and were met by tallyhos and other pure lard will do. Don't mix with conveyances and taken to the beach, carbolic acid or anything else. A about two miles distant.

EDWARD JULIAN!

Phonette.

Bowles-What do you think of my arguments?

The Other - Sound-most assuredly sound.

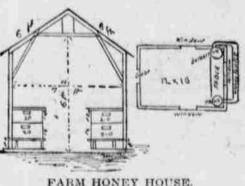
Bowles-And what else? The Other-That's all-merely



EXTRACTING HONEY.

It Is Some Trouble to Secure It, But Additional Profits Pay for the Extra Work,

I got my early instructions in Calimake extracted honey as there is more profit in it. The bees that will make 100 pounds of comb honey will make 350 to 400 pounds of extracted honey if properly attended to. The railroads charge twice as much freight on comb honey as they do for extracted and the dead weight is about double. In California I have shipped 111/4 tons from 75 stands and their increase in one season, and I did not use my method of rapid increase, but could not do



TREATMENT FOR LICE.

n Agricultural Epitomist.

lank inside the house .- E. W. Sinclair.

To Keep Poultry Free from Vermin Is as Essential to Success as Good Feeding,

While the food is important, it is not any more so than taking care to shore, which is to be dredged out and keep the poultry free from vermin. an outlet made into the ocean, so that This is not a hard task if taken in fresh tide water may flow in and out. time. Any of the lice killers used Just now the pool is stagnant, and judiciously around the nests will kill said to contain a large number of the lice on the hens, but be careful sting rays, which are dangerous, and not to use them too freely. Years are to be dredged out. The lagoon ago I killed some very fine turkey will furnish still bathing. It is to be bens by using too much. If you have surrounded by a park. A large por- neglected to treat for lice before she tion of the town is to be on the bluffs hatched, take the mother when she is and land behind them, as the beach through and thoroughly dust her This is a great scheme, and sounds chance to shake the powder well out few moth balls in the roosting places is as good as anything to keep vermin down after you once get rid of them. Little turkeys must be kept dry until they are well feathered. After the wheat is harvested they will take care of themselves, but they should roost near the house. If they roost out one night something may catch them .- Mrs. B. G. Mackey, in Reliable Poultry Journal.