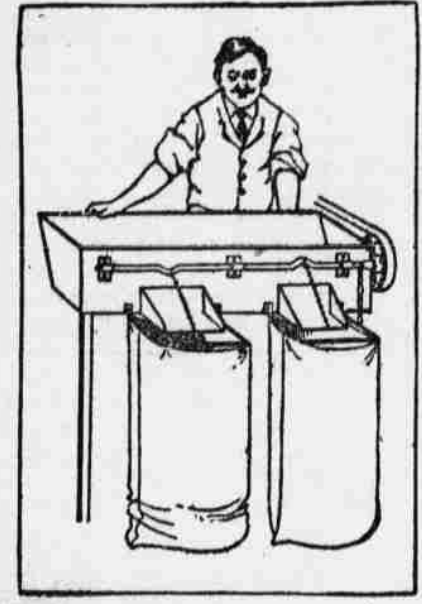




For Filling Sacks.

In filling sacks with grain, flour, cement, etc., it has been found impossible for one man to do the work. A second laborer is required to hold open the mouth of the bag while the other does the filling. The necessity of the extra laborer is eliminated in the sack-filling apparatus shown here, the invention of a Washington man. This apparatus was designed primarily to provide a device by which bags could be quickly and economically filled by one man. A hopper is provided, to which a pulley is attached at one end. At the front are the frames for supporting the bags after the latter have been fastened in position. The grain or other article to be placed in the



HOLDS BAGS OPEN

sacks is shoveled into the hopper, from which it drops by gravity into the bags. As the grain descends the bags are shaken at regular intervals by an arrangement attached to the pulley. The bags are in this way automatically lifted off the ground a trifle at each turn of the pulley, allowing the grain to settle, filling the bags to their utmost capacity. This does away with the ordinary laborious method formerly employed by hand. It is claimed that the bags can be filled in one-fourth the time heretofore required and by one man.

Causes of Roup.

When fowls crow at night, which is the fact when the number quartered is greater than the capacity of the house, they sweat. This sweating causes the feathers to rot at the base, giving them the very appearance of molting. This explains why so many flocks look ragged in early summer.

It is a noted fact that the majority of cases where roup has become epidemic among fowls the latter were crowded in tightly-built houses when the weather is very cold and allowing the houses to remain closed all the next day. This creates a moisture which generates dampness, and the whole house feels very much like a vault. At night the house is more or less filled with dampness emanating from the fowls' breath, but if, on the following morning, the windows are opened wide, this dampness will be dispelled. This is a great point in favor of the scratching shed plan of house.

Hog Cholera.

The Kansas experiment station has carried out an extensive series of experiments along the line of hog cholera and its prevention. The method of rendering hogs immune to the disease was by vaccination. A virus was introduced into the system which reacted upon possible contagion, thus protecting the animal against the disease for a period of several months. The experiment showed that through this process the successfully vaccinated hog is immunized and can be kept with no risk of infection for a period long enough to fatten and prepare for market.

Popular Breed of Poultry.

Leghorns if compelled to roost in cold houses and pick a living from the slush of a barnyard will not lay. But when warmly housed and properly fed they are the best of winter layers. The best bred leghorns are practically non-sitters and should not be counted on to rear their young. For those who are so situated that they can hatch and rear their pullets artificially or with hens of other breeds, and who give their hens suitable care in winter, the leghorn will prove a very profitable breed for the farm.

Wash Eggs for Market.

It would in a sense be better to wash eggs sent to market than to send them in a dirty condition. But washed eggs have no keeping qualities. The water appears to dissolve the gelatinous substance which seals the pores of the shell, and air is thus admitted and soon starts decomposition. The better way to treat dirty eggs is to take a woolen rag only slightly moistened with water and gently rub off the dirt.

Transplanting.
As the time approaches for removing young plants from the flats in the house or from the hotbed outside, an extra amount of airing must be given to harden them. Plants which have started indoors or under glass are more or less tender and will not be able to thrive under the rigor of early spring planting without treatment. They must become hardened, or acclimated, to the new conditions.

At least a week before transplanting remove the sash entirely from the hotbed during the day and allow abundance of ventilation at night, except when heavy frost threatens. This will give the plants practically an outside temperature for the greater part of the day and they will grow stronger and harder thereby. At this time also less watering should be given to check growth and make the plants more resistant to the cold. All plants can endure a lower degree of temperature under dry than under moist conditions.

Most seedlings are transplanted direct from the flat or hotbed to the open garden when they have attained a height of from four to six inches or more. When facilities are at hand a better way is to first transplant them to a cold frame, which is the same as a hotbed without the heat. In the cold frames they become accustomed to lower temperature and are still protected from frost of nights and on cold days. A still better way is to transplant the young plants at the appearance of their second or third set of true leaves to two inch flower pots.

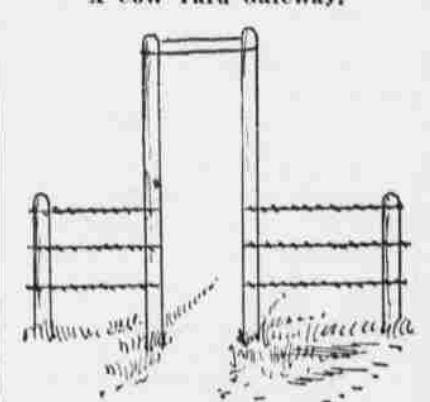
Disking Alfalfa.

The work of disk ing alfalfa requires a little bit of skill. The disk must be set just so it will cut the ground sufficiently and do as little damage as possible. A little experience will enable any intelligent man to do the very best work in the field. There are times and conditions when the spring tooth harrow may do all right, but generally nothing but a good sharp disk with enough big horses in front and a competent man on the seat can do the work. I use only the smoothing harrow in the early spring, but after each mowing I use a disk or spring tooth, whichever I think best, always finishing with a spike tooth, so as to leave the field in the very best possible condition for the growing crop. It is a real pleasure to see the alfalfa start out anew and grow about one inch a day on an average.—Denver Field and Farm.

Foundered Horses.

A. S. Alexander, veterinary surgeon, explodes the old idea that a horse can become "chest-foundered." He says that such cases are those suffering from chronic founder (laminitis), which affects the feet and not the chest. In old-standing cases of foot lameness the chest muscles may waste away in sympathy, and that fact has led to the "chest founder" idea. Such a horse should be shod with wide-webbed, flat bar shoes, put on over dressing of tar and oakum, and a thick leather sole. Then clip off the hair and blister the hoof heads (coronets) of forefeet with a mixture of one dram of biniodide of mercury and two ounces of cerate of cantharides rubbed in for fifteen minutes. Wash blister off in forty-eight hours, then apply hard daily. Blister every three or four weeks.

A Cow Yard Gateway.



A handy entrance into the cow yard is made by cutting the wires between posts and putting in two tall posts. Wire them together at top, put on fence wires and you can get through, but the cows cannot.

Electro-Chemical Fertilizers.

By the aid of electro-chemical production of manures containing atmospheric nitrogen, Germany expects soon to largely decrease its importations of saltpetre from Chili.

Helpful Hints.

- Oil up the work harness.
- The neglected colt or calf will prove profitless.
- Cattle will never do well in the same pasture as sheep.
- Wood charcoal should always be kept in the hog pen.
- How are the farm implements? Any of them need repairs?
- To improve live stock, requires intelligence and thought.
- It is a good plan to have the horses and cows clean up their mangers after each feed.
- There is such a thing as overfeeding. Feed stock all the food they will assimilate, but not more.
- Don't have a lot of manure lying in the yards all summer. It will lose just about half of its value by fall.
- It is better to feed the cows fodder and hay after milking, as it keeps the dust down. Feed the grain before milking.
- Don't plant poor, weak seed, corn next spring. It is time and money thrown away. There is plenty of good, strong seed to be had.

A BLOODLESS REVOLUTION.

Movement for Turkish Constitution Started at Macedonia.
No portion of the dominion of the Sultan of Turkey suffered more severely under the despotic rule of Abdul Hamid than the territory commonly known as Macedonia. It has been the center of disturbances in the empire for many years and its Christian inhabitants have been subjected to awful hardships and tortures. Yet it was at Monaster, in Macedonia, where the movement started which forced the Sultan to proclaim a constitution. The garrison there, which had been won over to the side of the Young Turkey party, mutinied because of a wrong inflicted on them by a general who stood high in the Sultan's favor and shot the general. Abdul



THE SULTAN OF TURKEY.

Hamid raged and stormed and ordered regiments from Smyrna, Salonica and other military posts to advance against the mutineers and exterminate them. The troops refused to move, for they, too, had become imbued with the principles of the Young Turkey party. The Sultan sent trusted officials to see why his orders had not been obeyed. They were promptly shot. At this juncture Maj. Nazler, commanding the garrison at Salonica, sent a message to the Sultan: "Proclaim a constitution at once or I will march on Constantinople at the head of 300,000 men." The Sultan sought to temporize, but the time for that had passed. The garrison at Salonica boldly proclaimed a constitution, and for the first time since Turkish rule had extended over Macedonia the name of the Sultan was ignored in the religious services in every mosque in



A MACEDONIAN SHEPHERD.

that province, or eyalet. Thus seeing his power as temporal spiritual ruler melting away, Abdul Hamid proclaimed a constitution, and the practically bloodless revolution was accomplished. The accompanying illustration shows a Macedonian shepherd in his national costume, for whom and for those of which he is a type a new era now dawns.

COST OF LIVING IN NEW YORK.

More than One Can Ever Hope to Earn in Wages.
Economy is nothing but poverty in New York, by contrast with the abnormal demands that living involves. Spending 5 cents for breakfast, going without luncheon, and paying a dollar for dinner is economy for a single man. A breakfast that costs 30 cents and a dinner 60 cents is poverty; the boarding-house life is poverty; the lodging-house life is something worse; and the ordinary life in a flat is voluntary servitude, says a writer in Harper's Weekly.

Sociologists claim that the lowest possible yearly expense for a working-man with a wife and three children, embodying a normal standard of living, is \$959. The statement was made recently by the New York department of charities that the average laborer's family in New York is existing on about \$700 a year. The minimum rate of rent on the east side for the barest decencies is \$4 a month. Coal costs

from 10 cents to 15 cents a pall, a fabulous price when estimated by the ton. "Get between this poverty and the 'economy' of the small-salaried employe who is compelled to adjust his earnings to the demands of his occupation there is small difference. We live in New York by the cost, rather than value of things. An apple purchased on 5th avenue costs twice as much as the same apple bought on 14th street. The dollar Bowery shirt costs twice as much on Broadway. This is the city where they 'pay the price.'"

The self-indulgent man who spends \$300 a day has not saved his money out of his wages. The woman who could not manage her household for a season on less than \$75,000 is not the daughter or the wife of a wage-earner. Economical beginners really have no actual relation to the existing problem of living in New York.

What does it cost to live in New York? More than you can ever hope to earn in wages; and, so far as the chances of speculation are concerned, that infers the necessity of "pull." If you haven't a "pull," social or political or financial, your speculative chances are slight. Obviously this state of restless endurance is demoralizing. It undermines character. Presently you find yourself following the procession of people who are living beyond their means because they seem to be enjoying themselves at it.

The only way to live within your income in New York is to become blind to the extravagances and allurements that make this the metropolis, and to sacrifice the pleasures of temptation for the comforts of an honorable old age.

THE ORIGIN OF LAKES.

English Geologist Advances a Highly Novel Theory.

The position of the earlier geologists, standing, as they appeared to do, on the solid foundations of the earth, once seemed to be impregnable. But recent discoveries, notably that of radium, have unsettled many of the older beliefs and theories. And now a very eminent geologist has advanced a new and very interesting theory regarding the origin of lakes and mountain tarns. Hitherto glacial action has been accepted as a sufficient explanation of the existence of these bodies of water, but the investigations carried on by Prof. Garwood of England tend to establish the probability that in many instances the gradual solution of dolomite is the cause. In his recent address before the Geologists' Association at University College, London, a carefully prepared model of Lake Ritton, Val Plora, near Airolo, on a scale of about five inches to the mile, gave a very clear illustration of the conditions supporting Prof. Garwood's theory, and the opinion was expressed by those present that he had made out a good case.

And what is dolomite? The unscientific reader may ask. Dolomite, named in honor of the French geologist, Dolomieu, is a calcium-magnesium carbonate that crystallizes in the hexagonal system. It varies in color from white to reddish or greenish white, and, in some varieties, even reaches brown and black. Dolomite, both as a mineral and a rock, is found in various parts of Europe and the United States. The crystallized varieties include the pearl spar, which is so called from its luster. The compact varieties are used as building stone.

The houses of Parliament in London were built from a variety found at Belsover Moor, and St. Patrick's Cathedral, New York City, is built from a variety found in Westchester County, N. Y. Calcined and slaked, dolomite yields a cement offering considerable resistance to the action of water. The same mineral, when treated with sulphuric acid, yields calcium and magnesium sulphates and is used in the manufacture of Epsom salts.

HOME ADDRESSES.

Britons Have to Use a Lot of Words to Write Them.
Have you ever observed, asked the man who crosses twice a year, how we have it on the British in the matter of addresses? For instance, a New Yorker will give his address in this compact fashion:

Phillip Robinson,
200 W. 51st street, N. Y.

But your traveling Briton may have to inscribe himself somewhat after the following style:

Mr. Herbert R. Eustace W. Plunket-Ferguson,
Q. C. G. C. M. G., C. B.,
The Shrubbery,
3 Tankerville Terrace,
Blenheim road, Mowbray street,
Kensington, W., London, Eng.

In olden times, before the system of numbers had been introduced at all and cities were still a maze of little streets, addresses were a very complicated affair. I once saw an authentic specimen of a professional card of the year 1769. It was that of a celebrated French engraver. It ran like this:

Papillon,
Engraver on Wood of the Society of Arts,
Paris: Bievre street, near the place Maubert,
Next door to the porte cochere on the right,

In the long alley,
On the second floor up the grand staircase.
—Harper's Weekly.

The Trouble.

Love Comedy—Yes, Starman, the tragedian, is hopelessly mad.
Hi Tragedy—Overstudy?
Love Comedy—No, his understudy. He made a bigger hit in the part than Starman.—Philadelphia Press.

Old Favorites

Roy's Wife of Aldivalloch.

Roy's wife of Aldivalloch,
Roy's wife of Aldivalloch,
Wat ye how she cheated me
As I cam' o'er the braes of Balloch?

She wou'd, she swore she wad be mine,
She said she lo'ed me best o' onie;
But, ah! the fickle, faithless quean,
She's ta'en the carl, and left her Johnnie.

Roy's wife of Aldivalloch.

Roy's wife of Aldivalloch,
Roy's wife of Aldivalloch,
Wat ye how she cheated me
As I cam' o'er the braes of Balloch!

Oh, she was a canty quean,
An' weel could dance the Hieland waltz!
How happy I, had she been mine,
Or I been Roy of Aldivalloch!

Her hair sae fair, her e'en sae clear,
Her wee bit mou' sae sweet and bonnie!
To me she ever will be dear,
Though she's forever left her Johnnie.
—Anon.

Long Time Ago.

Near the lake where droop'd the willow,
Long time ago!
Where the rock threw back the billow,
Brighter than snow;
Dwelt a maid, belov'd and cherish'd
By high and low;
But with autumn's left she perished
Long time ago!

Rock and tree and flowing water,
Long time ago!
Bee and bird and blossom taught her
Love's spell to know!
While to my fond words she listened,
Murmuring low,
Tenderly her dove-eyes glistened
Long time ago!

Mingled where our hearts forever!
Long time ago!
Can I now forget her?—never!
No, lost one, tears!
To her grave these notes are given
Ever to flow;
She's the star I miss'd from Heaven
Long time ago!
—George P. Morris.

FOR CATCHING ANIMALS.

Grappling Tongs Make Capture of Little Beasts Easy.

Any person who has tried to catch a pig or other small animal in even a comparatively restricted space will appreciate the value of the animal catcher invented by an Oklahoman. By means of this device the capture of elusive little beasts is made comparatively easy, and it will no doubt be much in demand among farmers and butchers. The contrivance consists of a pair of grappling tongs with pivoted curved jaws and foldable arms. One of these arms fits over a pole and a



JAWS SEIZE THE LEG.

rope is slipped through a ring at one end of the other arm, at the same time being slipped through a short chain at the intersection. In using the catcher the operator seizes the animal's leg with the jaws of the instrument and pulls the rope, which closes the jaws tight. The big advantage derived is that the pursuer need not continually stoop and hurl himself at a fugitive to grasp its leg with his own hands, a proceeding maddening in its frequent failures and loss of dignity.

Improved Hose Reel.

The excellently constructed reel for garden hose shown in the illustration below is the recent invention of an Oregon man. At best, long lengths of garden hose are exceedingly cumbersome to handle, but with the assistance of this apparatus the problem becomes easy. It is not necessary to unravel all the hose before the supply of water can be turned on.

The end carrying the nozzle is always free to operate, the water flowing unobstructed through the unused hose encircling the reel. Moving the apparatus backward or forward lengthens or shortens the line of hose but does not interfere with the flow of the water, which is at all times unimpeded. In addition, a spigot is arranged on the axle to regulate the flow of the water. The axle is hollow, the water traveling through the hose into the axle and out of one end of the axle into the short length of hose terminating in the nozzle.

Difficult, Indeed

Shortleigh—Tryin to be independent without capital is as difficult as—
DeLong—Well, as what?
Shortleigh—As trying to learn the art of boxing from a book.

THE WEEKLY HISTORIAN



1600—Henry Hudson sailed from Holland in search of the Northwest passage.
1774—The bill for closing the port of Boston received the royal assent.
1775—New York Colonial Legislature held its last session.
1790—The New York Legislature passed a law for the gradual abolition of slavery in that State.

1804—A French cruiser blockaded the port of Charleston, S. C. All the territory ceded to the United States by the State of Georgia, north of the Mississippi territory and south of Tennessee, annexed to Mississippi by act of Congress.

1812—Congress passed an embargo law for ninety days. Badajos, an important barrier fortress in southwestern Spain, surrendered to the French under Marshal Soult.

1820—A large section of Augusta, Ga., destroyed by fire.
1830—Survey made for laying out the city of Chicago.

1841—The foundations of the Mormon temple were laid at Nauvoo, Ill.
1850—More than 400 persons perished in the wreck of the steamer Royal Adelaide off Margate, England.

1852—Tremont Temple, Boston, destroyed by fire.
1854—First treaty between the United States and Japan signed. A combined force of Americans and English attacked and routed a Chinese imperial army of 10,000 at Shanghai.

1855—Bronze equestrian statue of Gen. Andrew Jackson unveiled in New Orleans. Gore expedition left St. Louis to explore the headwaters of the Powder River in Montana. The State prison at Nashville, Tenn., destroyed by fire. The electric telegraph between London and Balacava completed.

1861—South Carolina convention ratified the Confederate constitution.

1864—House of Representatives adopted resolutions declaring that France would not be allowed to form a monarchy in Mexico.

1868—Michigan voted against negro suffrage.

1870—A bill re-admitting Texas to representation in Congress was approved.

1872—Earthquake at Antioch, resulting in the loss of 1,900 lives.

1873—Nearly 500 lives lost in the wreck of the steamship Atlantic off the coast of Nova Scotia.

1875—Riots of striking coal miners in Pennsylvania.

1881—Decennial census of the Dominion of Canada showed the population to be 4,324,810.

1882—Steamer Golden Gate burned near Memphis, with loss of twenty lives. Jesse James, noted desperado, killed by the Ford brothers, at St. Joseph, Mo.

1883—Ship of war Hawk burned at Port Discovery, Washington.

1884—House of Representatives passed a bill for the redemption of the silver trade dollar. Rioters attacked and burned the court house in Cincinnati.

1888—Four thousand persons killed by earthquake at Yunnan, China.

1892—Mormon temple at Salt Lake City completed.

1894—President Cleveland vetoed the Bland silver bill.

1895—The Iowa Supreme Court sustained the construction of the mulct law of 1894.

1900—Queen Victoria visited Ireland, landing at Queenstown. The Kentucky court of appeals declared Beckham Governor.

1903—Statue to William E. Gladstone erected in Westminster Abbey.

1904—Chicago voted for municipal ownership of street railways.

1908—The Czar dissolved the Finnish diet for expressed sympathy with the Terrorists. The Fifth Avenue Hotel of New York closed its doors. General suspension of bituminous coal mining occurred pending settlement of new scale.

PRAIRIE DOGS TO BE POISONED.

Coated Wheat Is to Be Fed to Enemy of Farmers in the West.
Poisoned wheat is to be used as bait to kill off the prairie dogs, the stockman's enemy, that now infest Arizona and New Mexico and have become a menace to the forest ranges there. On ranch lands prairie dogs have been destructive to wheat, grain, potatoes and sugar beets; while on grazing lands they destroy so much grass that the grazing capacity of the land is reduced to 75 per cent. Last spring a successful campaign was waged against the prairie dog and this year it will be conducted on a larger scale. The poison is prepared by coating the wheat with a preparation of strychnine, cyanide of potassium, anise oil and molasses.

Births in America Decreasing.

According to figures compiled by the Census Bureau, the birth rate in this country has fallen off, decidedly. In 1790 the average family in this country consisted of 5.8 persons and in 1900 it was only 4.6 persons. The ratio of children to women since 1790 has been cut in half, the number being in 1900 one child to each woman over 16 years old, the same as the ratio in Great Britain at that time. In France it was 3, and in Germany 1.1.