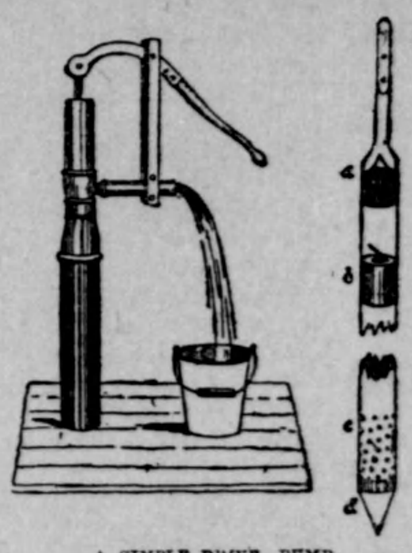
AGRICULTURAL.

A Homemade Drive Pump.

A mechanic living near me made a drive pump from about 13 feet of iron pipe two inches in diameter, and a connecting piece for fastening pipe to the side for the spout, to which uprights were attached to hold the handle, as shown in the illustration. He fitted a steel plug (d) to one end of th longest piece of pipe and drilled holes near the end for the inflow of water (c). The pipe was then, with a large wooden mallet, driven down about 10 feet into a sandy



A SIMPLE DRIVE PUMP.

loam, until it had penetrated a layer of sand containing water. To the top of the pipe the cross piece was connected, and about five feet down a plug was inserted containing a hole fitted with a leather flap valve on top (b). A plunger of hard wood with a hole in the bottom also fitted with a leather flap valve was connected to a handle by an iron strap, and the handle was supported from the spout of the pump on two strips of hard wood bolted fast together. On the piston, or plunger (a), strips of leather are fastened to promote suction. A drive well at first brings up the fine sand with the water, but as the sand is pumped outa cavity is formed which holds a barrel or two of water, and in time all the sand near the bottom of the pipe disappears. One advantage the driven well has over a well that is dug and walled up is in its freedom from mice, toads and insects. Another advantage is its cheapness. The well here described cost only about six dollars completed, and has done good service for several years pumping much water in a dry climate.

Profitable Fall Dairying.

The usual course pursued by dairymen is to turn milch cows upon the aftermath, of the meadows, which the showers of September have stimulated to an abundant growth. While this flush of feed lasts the milk yield is materially increased, and more butter and cheese is produced from a given quantity of it than earlier in the season. This advance in richness is due both to the time the cows have passed beyond the parturient period and to the influence of favorable feed. Combined with this we have in the fall cool weather conducive to preserving milk quality, with a consequently improved quality in dairy products. Butter and cheese improve in price, and the autumn is considered a profitable period for the dairy farmer.

While there is no doubt about the immediate profit, it is well to look deeper than a casual inspection and see if there is any real profit in this method. Meadows are set apart for producing hay and not for affording pasturage. A good crop of good hay is an essential production of every well-regulated dairy farm. Fall pasturage of meadows without heavy top-dressing of manure means depletion in grass yield for the ensuing season. Cattle will graze the tender succulent rowen very closely, and leave the grass roots unprotected at the advent of winter. This is doubly damaging when so few fields are protected by good woodland wind breaks. As a result these closely cropped meadows are bear or partially so in winter, the snow collecting about the fences in drifts. A thick matting of rowen, if it existed, would then act as a protective mulch, and combined with the snow it held would prevent the extensive freezing out of grass roots. I have seen the yield of hay from a fertile meadow reduced one ton per acre in amount in the season following a close fall grazing. Besides removing the protection this method subjects, the land to a double cropping in one season involves a heavy drain on the fertility of the soil.

In view of these facts it becomes a grave question whether or not the increase of income from fall dairing as at present secured amounts to real profit to the milk producer. It is apparent that it is not secured in a legitimate way, and dairymen who regularly practice bleeding their meadows by fall grazing are in reality cheating themselves. The cheat is a grave one entailing damage at the present and weakening the basis of future dairying. If the pasture is not sufficient to maintain a good flow of milk in the fall, which it generally is, soiling crops should be supplied to make up the deficiency.

Improving Poor Places in Meadows and Pastures.

In most meadows and pasture fields are patches of greater or less extent that are not nearly as productive as the remainder of the field, though the entire surface is uniformly seeded. These unproductive places are usually knolls or hillsides, from which the fertility of the soil had been exhausted by washing or cropping. During autumn they can easily be located and brought back to a state of fertility. First apply a good seeding of timothy or other grass seed, and then cover the entire surface half an inch or more deep with well rotted barnyard manure, or a heavy sowing of commercial fertilizer, passing over the spots several times with a spring tooth or harrow. The early fall rains will cause the other seeds to germinate, and the whole surface present a healthy green appearance before winter sets in. Frequently a field that has been into grass for many years is well set with moss, in which case scatter seed over the surface, apply some rich manure, and harrow until the surface looks ragged, thus laying the foundation for an increased growth of herbage, and all at small expense, without replowing the field. These bare spots are not at all pleasant to look at, and do not speak well for the farmer.

Calf Feeding.

There is an impression with many farmers and dairymen, that skim-milk is a rather thin diet for calves; and we see constantly in the dairy papers recommendations that it should de reinforced with flax seed meal, or jelly made from the ground seed or cake.

So far as the oil or fat is concerned thi addition is all right. But flax-seed, and especially the ground cake, is exceedingly rich in protein; and this is just the trouble with the skim-milk. It is deficient, not in protein, but in carbohydrates—fat and starch. The best single addition to skim-milk for calves as soon as they can eat, is corn or oats.

Dairy Granules.

Milk-fat is, commercially, the most important compound in milk. It varies from below 2.5 to over eight per cent. and averages about 3 3-4 per cent. Science has also shown that it cost less to produce a pound of fat in rich milk than in poor milk.

That bane of modern business life, destructive competition, affects the diaryman least. He need not fear the market chaser, for the growth of a herd of dariy cattle is not of a season, but of a decade, and those who follow the rises of the market until the drop engulfs all, will never be a competitor in dairying, because he has not the endurance to succeed.

Did you ever see a covered barnyard? Well, if not you ought to see how the cows enjoy one in cold weather. They can get enough exercise without becoming chilled through and through. It is an easy matter, too, to keep one dry by the use of plenty of straw or leaves, or by frequently drawing out the manure. They are cheap and can generally be put up with but little expense and trouble.

Whatever churning temperature the butter maker may from time to time decide on, there is one general rule which we believe should be kept in view, and that is the useless work of heating the cream by concussion. If the butter "comes" at 58 degrees it is useless to commence at any lower temperatur e than say 54 degrees. Four degrees is all the rise in temperature needed in the average churn, and it seems to us that anything over that is simply an unpractical way of heating the cream.

When a station school or farmer makes a record of the quality of the milk of a cow without reference to the quantity, it is only a half fact and thus of little value Three cows are found giving milk testing three, four, five per cent. butter-fat respectively. The lower is poor milk, the higher rich milk. But if the cow gives 40 pounds of the three per cent. milk in a day it will furnish 1.2 pounds of butter fat; while if the cow giving the rich milk gives but 20 pounds in a day she will furnish to her owner only one pound of butter-fat.

PEARLS OF TRUTH.

If you would know and not be known, live in a city.—Cotton.

When anger rises, think of the consequences.—Confucius.

A bad book is the worst that it cannot repent.—E. N. Kirk.

Ere perfect scheme of action thou devise, will life be fled.—Schiller.

One of the ill-effects of cruelty is that it makes the bystander cruel.—Buxton.

Violence in the voice is often the death rattle of reason in the throat.—Boyes.

The wind never blows fair for that sailor who knows not to what port he is bound.—Anon.

We do not live in a world in which a man can afford to be discouraged by trifles.—Blackie.

Commerce defies every wind, outrides every tempest, and invades every zone.—Bancroft.

Heaven's eternal wisdom has decreed that man should ever stand in need of man.—Theocritus.

Were we perfectly acquainted with the object we should never passionately desire it.—Rochefoucauld.

The cocoanut grove will not flourish which does not daily hear the steps of its owner in it.—Hindoo Proverb

Not the price that we bargain to pay, but the price that she sets on herself, is the value of Truth.—Owen Meredith.

Were all things certain, nothing would be sure; joy would be joyless, of misfortune free; were we all wealthy, then we were all poor.—Euripides.

Features alone do not run in blood; vices and virtues, genius and folly, are transmitted through the same sure but unseen channel.—Hazlitt.

The crowd attend the statesman's fiery mind that makes their destiny; but they do not trace its struggle or its long expectancy.—Lander.

"Have patience," I replied, "ourselves are full of social wrong; and maybe wildest dreams are but the needful preludes of the truth."—Tennyson.

The day is yet young, and in the early dawn many things look weird and fantastic which in fuller light prove to be familiar and useful.—Spottiswoode.

FIGS AND THISTLES.

Heavenly music cannot get into a gloomy heart.

Every land that flows with milk and honey has giants in it.

It is better to suffer wrong from all men than to do wrong to a single one.

We are never saved by knowing our strength or lost by knowing our weakness.

There are people who pray for showers of blessing who expect them to come without clouds.

The sea otter is the most valuable of all furs; $1,100 have been paid for a single skin.

THE HOME.

Rustic Work.

While in the Union Depot the other day I saw a very nice rustic flower stand, and as this is about the time of year when such things are necessary I will tell you how this was done, and if any interest is taken by any of our readers, at some future date I will show how to make many such useful as well as ornamental articles, says a writer in Toronto Ladies. Journal.

Fig. II.

This one stood about 3ft. 6in. high and looked something like Fig. 1. In reality it was much better, and I am sure had my readers seen it they would have liked it as much as I did. The three legs are of the same shape, and cut perfectly square at the top so as to enable the bottom of the basket to be nailed to them, as shown in Fig. II. The sides of the basket

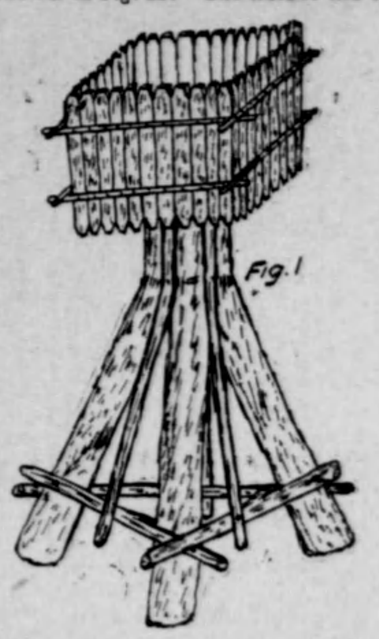


Fig. I

are then nailed all round the edge of the square bottom. These sides are made of small branches cut in two. If the branches are brittle you must soak them in water for some time. Fig. 1 will show you how to complete the stand without any further description. Be sure and use copper nails as wire or iron nails will rust.

Draping Curtains.

The question of how to drape curtains is an important one. One artist said: "Everything should hang straight at the sides." Another favored festoons and ends, or, in technical parlance, "sways and tails," and a third favored "draped lamberquins." However the artistic eye may design a particular drapery, there is one great important fact, too slightingly treated by many housekeepers. That is, perfection in hanging. A draper is just as exact in measuring and placing curtains, as the carpenter is in hanging the door. A little out of plumb means any amount of trouble. An uneven folding, means crooked, unsightly hanging to the drapery, and sagging or "skews" to the very best part of the room's decoration. For are not windows open pictures? Are they not the eyes of a room, and therefore in need of careful treatment? The poorest stuff requires quite as much, if not more, care than that of better quality.

Scraps of Black Silk.

Never throw away a scrap of black silk. An inch strip of black silk is a boon sometimes. After ripping up the old gown, take three or four old kid gloves and put them to boil in a pint of water. Let them boil for an hour, strain through a cloth and put in the liquid a quart or more of hot water and a tablespoonful of borax. Lay your silk flat on a perfectly clean table, that has no seams or cracks in it, and rub every inch of the silk with the mixture till it is thoroughly saturated and all spots are removed. Then fix a tub of warm water, in which put a liberal quantity of borax, and pick the silk up by the corners and dip it up and down in the tub of water. Dip and dip till it is well rinsed, then take out to the line, where you have pinned a long strip of cloth about a foot wide. To the edge of this cloth pin the silk by the extreme edge, stretching it so that it is not wrinkled and does not droop. Let it drip dry, and it will need no ironing. Do this on a bright day, when there is no wind. Black ribbons may be cleaned the same way.

Apple Recipes.

Fried Apples, No. 1.—Use fair tart fruit. Wash and dry the apples, remove the stems, blossom end and core, but leave the specimens otherwise whole. Slice thin and drop into an oiled or buttered frying pan, the fat in which must be hot. Turn to prevent scorching, and when tender and brown serve immediately.

Fried Apples, No. 2.—Peel and core sou apples, divide them into eighths and sprinkle with sugar, flour and bread crumbs. Melt a small piece of butter on the bottom of a stewpan, and cover with slices of apple, which are to be fried till yellow on both sides. Then place in a saucepan some milk, sugar, bread crumbs and currants; put in the fried apples, and let them boil up, but not to break. Serve hot with sauce left in the pan.

Fried Apples, No. 3.—The old-fashioned way was to fry the peeled and sliced apples in the fat of salt pork, and to serve without sweetening as a sauce for the meat.

Stewed Apples, No. 1.—In this case sweet apples are to be used; they must be firm and sound, about of a size, perfectly cleansed, and with the blossom ends removed. Simmer slowly till soft, putting them in the water when cold, and lift them out entire. Sweeten the juice a very little, and flavor slightly with lemon peel, serving with the sirup.

Stewed Apples, No. 2.—Use nice tart fruit, which is to be washed, peeled and cored. Stew in a little water till soft, press through a colander or coarse sieve, sprinkle very slightly with salt, sweeten to taste and serve.

Stewed Apples, No. 3.—The apples, when peeled, cored and quarted, are to be dropped into cold water to prevent discoloration. Then a sirup is made of sugar and water, proportioned to the acidity of the fruit. When this has been brought to a boil the quarters are dropped in, covered, and cooked till tender. They are then skimmed out carefully, and the juice, if too thin, is boiled a little longer, when it is poured over the apples in the dish in which they are to be served. This sauce is pleasing without flavor, but nutmeg, cinnamon or lemon peel may be added, according to the taste.

Boiled Cider Apple Sauce, No. 1.—Into a gallon of sweet new cider, which has been reduced one half by boiling, drop quartered apples with sufficient sugar to sweeten them. Let them boil slowly till tender, taking care that the apples do not scorch or break in pieces.

Boiled Cider Apple Sauce, No. 2.—This is for the preparation of sweet apples. Peel, quarter and core a peck of the fruit, which cover in a preserving kettle with sweet cider. Add four nice quinces, sliced fine. Boil for four hours, stirring and skimming often, and before taking from the fire add a pound of sugar.

Baked Apple Sauce, No. 1.—Pare and core some fine tart apples, and bake slowly in a pudding dish in the oven. The sauce will be of a rich red color, and should be kept covered till it is to be used.

Baked Apples Sauce, No. 2.—Take large and perfect tart apples, pare them and remove the cores, leaving the body of the apple unbroken. Fill the core cavities with sugar to which bits of butter have been added, set them in an earthern pudding dish, and pour around them half a cupful of hot water. Let them bake till soft, then mash with a wooden spoon, sweetening and flavoring to the taste.

GAMBLING AT RACES.

The Sport Could Not Sink Much Lower Than it Has on Many Tracks in New York.

The adoption of the anti-gambling amendment to the constitution of the state of New York will put an end to book-making and betting as they have been conducted in that state for some years. Reputable racing men and stock breeders like Mr. Keene see nothing objectionable in the law, but the Dwyers, Croker and others declare that it will destroy racing in the state and involve a loss of millions annually. In their opinion not only will racing deteriorate under the restrictions placed upon it, but the stock farms, in which great sums are invested, will be rendered unprofitable and loss visited upon men who are entitled to encouragement. As to deterioration in racing, the sport could not sink much lower than it has on many tracks in New York. Saratoga used to be a great racing centre and the meetings there attracted

THE WEALTH AND FASHION

of the metropolis. But the course has fallen into the hands of the men who came into notoriety at Guttenberg, and the management of affairs at Saratoga this year was not such as to inspire confidence. To suit the bookmakers and gamblers, morning racing was introduced, much to the regret of those who had been accustomed to spend their afternoons at the course, as was the fashion. Sport was subordinated to betting, and where that becomes the case racing ceases to be a pastime for gentlemen and becomes a plaything for professional gamblers. These latter are responsible for the winter and electric light racing on courses where the pool box is of more consideration than the purse. The amendment to the constitution will put an end to the operations of the multitude of questionable characters who spend their time "following the races" and bring discredit upon the noblest sport of all. The race course owners have, of course, great objection to this, as it deprives them of considerable revenue, inasmuch as it suppresses the bookmakers, each of whom paid $100 a day for the privilege of plying his business at race meetings. As there were.

MANY THOUSANDS OF BOOKMAKERS

the return from this source alone must have been enormous the past season, sufficient in itself, in some cases, to return a handsome profit over expenses outside the amount received from the public for admissions. How is this loss to be made up so that racing may be conducted without loss to the managers of courses? Ask the racing men interested. The answer is that as soon as the courses are cleared of objectionable habitues and the management placed in the hands of men whom the public respect, the crowds that will be attracted to witness the honest racing which will result will fully compensate managers for any outlay to which they may be put. This is the view turf lovers in New York take of the matter, and the better class are sincerely thankful that an end has been brought to practices which have degraded racing to the professional gamblers' level.

"Mother," sobbed the young bride, "he is just as mean as he can be." "No, he isn't, dear," said the mother soothingly. "A man can't really develop all his meanness till he has been married four or five years."

George—"I wonder why it's so easy to get engaged to a girl in the summer?" Jack—"I just tell you what, George, after a girl sees herself in a summer boarding-house looking glass she'll accept most anybody."

WAGES IN GERMANY.

Average Earnings of Ordinary Workman Less than $200 Per Year.

After an exhaustive examination of the wages paid in the large manufacturing establishments of Luxemberg, which he ays are about the same as are paid in other parts of Germany, George H. Murphy, United States vice-commercial agent there, transmits to the Department of State at Washington a report upon wages paid in steel and iron industries, with a general view of the whole subject of German wages. He finds that generally speaking the average earnings of ordinary workmen amount to less than $200 per annum. Women earn about half as much as men. The average wages of miners and foundry hands is less than $1 per day. The salaries of primary school teachers are $224 for males and $170 for females. A very large majority of the employes of the Government earn less than $400 per annum. On the other hand, still speaking generally, the necessaries of life cost as much in central Europe as they do in America. A workingman's expenditures for clothing and rent may possibly be somewhat less here than in America, but in the town of Luxemberg coal costs $7 per ton, eggs 21 cents per doz., rye flour 3c, wheat flour 5c, sugar 8c, butter 25c, beef 19c, veal and mutton 16c to 20c, fresh pork 20c, and smoked pork 23c per pound. Frugality and industry can hardly be expected to accomplish any miracle greater then that of enabling a thrifty workman to keep out of debt.

This distressing state of affairs is no doubt in part an unavoidable result of the competitive demand for employment, which must exist in every densely-populated country. But the misery of the European poor has been aggravated by that popular craze which causes the large towns and cities of Germany to grow with rapidity as phenomenal as that which is doubling and trebling the population of our own western cities. An important point of difference, however, lies in the fact that foreigh immigration largely accounts for the development of our towns, whereas German cities expand almost entirely at the expense of the rural districts. Consequently, the labor market is glutted, wages keep falling, and the evil is enhanced by the increasing use of labor-saving devices. The competition between manufacturers also forces down wages. The policy of the countries of central Europe seems to extend and inflate their manufacturing industries suicidally. Their idea of national prosperity and of happiness seems to be nothing more then the attainment of the ability to export manufactures and import food, and in support of this policy the Government is taxing workmen an import duty on food in order to give the manufacturer an export bounty. The much-talked-of disarmament of Europe will, if ever realized, bring further calamity by adding to the labor markets millions of young men unfitted for country life by several years' residence in city barracks. The development of our American manufactories is undoubtedly of great importance, but American workmen and women have good reason to favor the restriction of immigration and to view with apprehension the tendency to inflate our manufacturing industries beyond safe limits.

KILLED BY A CAT.

It Slept on the Baby's Face During the Night, Suffocating Her.

A despatch from New York says:—Six-months-old Sadie Kranz, of No. 11 Clinton street, was suffocated early on Thursday morning by a pet cat, which slept on her ace during the night. When Mrs. Rosa Kranz, the child's mother, went to the child's crib immediately after rising in the morning, she found her dead and the cat sleeping across her face. The Kranz family live on the ground floor of No. 11, Jacob Kranz being the janitor of the house, which is a large tenement. He had two children, both girls. Sadie was six months and nine days old. Her sister will be two years old on Dec. 28. Both of the children were very fond of the cat, which Mr. Kranz had found in the yard of the house. Little Sadie very often had it placed in her lap and would pat it and stroke its fur. The father always kept a sharp lookout for the cat, and whenever it jumped into the child's bed while the infant was asleep, which it often did, he immediately drove it away. The Kranzes allowed Sadie to sleep in her carriage during the night. On Thursday night Mr. Kranz placed the child in the carriage about ten o'clock. He and she played a while with the cat, which had sprung into the little one's bed. At about a quarter past ten o'clock Mr. Kranz took the cat out of the carriage and went to bed. The cat followed him, and, jumping on his bed, went to sleep. Mr. Kranz allowed it to stay there. He was awakened by the cries of his wife, who had gone to the child's carriage as soon as she had arisen. Kranz ran hurriedly to the carriage and saw the cat lying across the little one's face, asleep. He threw the cat on the floor and felt for the beating of the child's heart. There was no throbbing. She was still warm, however, and without stopping to dress himself he ran next door to the house of Dr. Lefkowics. Dr. Lefkowics arrived at the side of the girl about six minutes afterwards, but he said she had been dead for more than an hour. Some of the neighbors suggested to Mr. Kranz that he take revenge on the cat by hanging it or by toruring it. This he refused to do, but killed the cat by shooting it.

Four Honeymoons With One Bride.

Philip Stutz, a farmer living near Jeffersonville, Ind., and his wife Mary have had a remarkable matrimonial career. Being lovers in childhood they were early married, but, failing to agree, were divorced. After a few years they came together and were remarried. Again were they divorced and remarried, and even then did they secure a divorce, and last were they remarried at New Albany, thus being three times divorced and remarried. Mr. Stutz is well to do, and, as evidence that his wife can maintain herself in single blessedness, she was when last married, the owner of a large millinery store in New Albany. They declare their intention of separating no more.