

of her children and the happiness of her husband. She has help, but, after all, of what consequence is even the best help in a home? There must be a head, and that head must think, and thinking will kill where work will only tire. If the evil of excessive house-keeping would only cease with the employment of servants life would be easier. But with the kind of servants we have nowadays the evil is only increased.

The Cry for Rest. — REST SLEEP. — In the tropics, where no labor is required of men, the night is scarcely divided from the day; but in temperate climates, where man's working powers are in the highest state of activity, the night nearly halves the day, — at the season of intensest activity it does halve it. — God lights His candle late and puts it out early. All the remainder of the time is for rest. Then labor naturally stops, office and shop are shut; machinery is still. The deeree goes forth that the places of business shall be deserted. Then comes sleep—the long sleep, knitting up the raveled sleeve of care, pouring balm into hurt minds, immersing Nature in her bath of oblivion, untying the knots of the brain, sifting and disentangling the thoughts, carrying sufferers away into the land of dreams, and bearing the weepers of among their loved and lost ones. Sleep, answering questions that could be answered in the day-time; putting to rest doubts that had made the mid-day wretched, keeping all low cares and tribulations in their place, and calling out the imagination which revives and transports the mind.

MURDERING SLEEP. — But we murder sleep. We turn its darkness into day; its silence into revelry; its peace into pain. Fashion murders sleep; pleasure murders it, yes, and work murders it. In the days of youth when we might cultivate the habit of long, still deep sleep, we scorn its heavenly privilege, and throw its divine opportunity away, and then in middle age too many of us cannot sleep. We are nervous and restless, and God's great, immeasurable night is all in vain for us. We wake exhausted the night's fever spoils our day. We stumble and bungle in all we do. That is a touching story in the Gospel which tells how Christ was asleep in the fishing-boat when the storm came up, and ship wreck seemed inevitable. His companions, who had been watching their nets all night, were nerveless, and had lost command of the vessel. He wakes from slumber, rebukes the winds and seas, and there is a great calm. The good sleeper goes safely over life's turbulent sea. He rules the storm, for he has rested. He is himself. We should cultivate sleep while we can. Woe be unto us if we do not. In sleeplessness is utter weakness, there may be madness in it at last. Get all you can of it, it is God's daily boon of rest to the workers.

Grains of Gold. — Use where you can learn something useful, and you will be in the proper place.

It is not the ignorant man who is to be blamed, but he who doesn't know enough to find it out.

The glory of love is that which takes delight in doing gratuitously what nobody else would do if paid for it.

ALL experience bath shown that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed.

"A good name is rather to be chosen than great riches," said Solomon, and he was a millionaire.

EDUCATE the whole man—the head, the heart, the body; the head to think, the heart to feel, and the body to act.

The way to wealth is as plain as the way to market; it depends chiefly on two words—industry and frugality. — *Franklin.*

SOCIETY is composed of two great classes—those who have more dinner than appetite, and those who have more appetite than dinner. — *Chamfort.*

THERE are certain gossips in society who resemble long and twisted trumpets—what they receive as a faint whisper, they give out in a long, connected blast.

GOOD COUNTRY ROADS.

It Takes a Great Deal More Than Talk to Secure Them.

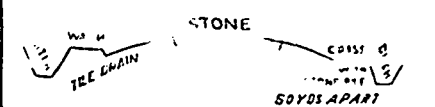
I know well enough the kind of plan the country is waiting for; it wants a plan that will give it roads for nothing. No revolution of that kind is likely to occur. But it does seem to me, and has always seemed, that a settled and united policy of employing public prisoners on the roads might easily improve the trunk lines to begin with for a minimum of cost.

I have urged this before often, for I had seen how well it could be done.

Every county gaol should work in unison on a trunk road through a state. Very often one or more of the county farms will own a crusher, but if not a good deal may be done in breaking by using proper long-handled hammers. All the stone for the crack British roads was so broken, and maybe is yet, but then there was a continuous system about it, while here there is none. There the stone heaps are deposited along the roadsides about 30 yards apart, and broken during December, to be laid on during fall and winter.

They don't try to build a road in a few days that will last forty years without attention! They don't ballast country roads from gutter to gutter 6 inches deep as our splendid new road architects do! They don't send two horse teams along to pick up the stones first, and then throw them off again into the ditches as I have seen done in this very state! They don't let water or even mud stay in a rut, for they aim to keep their roads without ruts! Every drop of standing water is let out of such little depressions as exist.

Some old fellow who does not want to go to the poorhouse is given work on each section (about 2 miles) of road.



He does all the work except hauling. A good road is first properly rounded (1) up, that is, sufficiently to throw the water to the ditches and gutters. Generally British roads are narrower than here, perhaps 32 feet or so; in such a case in the country a road gets about an inch of stone in the fall, and then the attendant with his wheelbarrow and hoe scraper does the rest, keeping the gutter open and breaking the stone piles, (I ought to say that the stone piles are never more than 18 inches high and flat on top, so that a runaway team would pull over them, and not knock their brains out) in the summer with a long handled hammer, and a piece of netting over his face!

(1) The more it is "rounded," the heavier the draught. A very slight rounding is sufficient. — *Ed.*

Practically this is the system all over the British empire, and some parts of Canada—which is in North America.

There is a section of a British road on the Lincolnshire marshes—which were once far softer than the prairies.

The ditches are kept in order by adjoining owners. The stuff from the ditches built up the road. The ditches are kept distinct. — *James McPherson, in Landscape Architect.*

HARD COUNTRY ROADS.

Until We Have Them Public Prosperity is Bound to Suffer.

At this time of the year we can appreciate good roads fully, and it is to be regretted that we forget how inconvenient bad roads are as soon as the roads that are bad get good in the spring. A few weeks ago we had occasion to drive four miles into the country in northern Ohio, where the roads get frightfully bad on occasion, and although we had a fairly good team and a light buggy, the best time we could make was to drive the four miles in an hour and a half. When we arrived at our destination the team showed the effects of the hard drive very plainly though they had not been driven off a walk. A week ago, in southern Ohio, we saw a team trotting along hitched to a wagon on which was 3,000 pounds of hay. They have good roads in southern Ohio, or rather southwestern Ohio, and they derive the benefit from them. They cost a tidy sum to make, but now that they are made the people benefited would not return to the barbarous mad roads of former years for any consideration. The costliest item of expense to the farmers of this country is the loss they sustain from impassable roads. There has been much agitation on the subject and it is having its effect, but until something is done to improve the condition of the roads of this country its prosperity will suffer to an enormous extent. Land in a county where the roads are good is worth twice as much as in a mud road county, and the farmers of the country could not pay taxes for any purpose that would make greater direct returns. Good roads are necessary to a perfect civilization, and that means that we shall have them some time in the not distant future. — *Springfield (O.) Farm News*

Good Roads and Prosperity.

Before all things the United States is an agricultural country. It is the possibility of large returns for labor in this direction which keeps up the price of labor in our manufactories and in all our industries and thus brings comfort and ease within the reach of all. Good roads, by lessening the cost of agricultural products, form the most effectual means of maintaining the condition of comfort and even luxury of which America is so proud. — *H. W. Conn, Department of Biology, Wesleyan University, Middletown, Conn.*

Direct Loss from Bad Roads.

Although the methods of attaining the result afford discrepant indications as to the amount of loss due to ill kept highways in Massachusetts, they alike clearly indicate that the direct loss is very great; probably amounts to somewhere between five and ten million dollars per annum. — *Report Mass. Com. Highways.*

The Dairy.

APPENDIX to evidence of Jas W Robertson, Dairy Commissioner, before the Select Standing Committee of the House of Commons on Agriculture and Colonisation.

ON THE MAKING OF BUTTER.

A thimbleful of milk of average quality contains over ten millions of globules of butter-fat. They are lighter than the liquid or serum of the milk, in which they float, and when it is left at rest they rise to the top. Cream is only that part of the milk into which the globules of fat are gathered in larger numbers than they are in the whole milk. It has no constant or regular percentage of butter fat. There may be only 8 pounds or there may be 75 pounds of butter fat in 100 pounds of cream.

SEPARATING THE CREAM.

Two methods of separating the cream from milk are in common use; one is known as the natural or setting method, and the other as the mechanical or centrifugal method.

In the natural method, the force of gravitation attracts the heavier portion of the milk, commonly known as skim milk, downwards in the vessel which contains it, with the result that the globules of fat are pushed upwards towards the top. The serum of milk is the name given to the heavier portion consisting of water, containing the casein, albumen, sugar and ash, nearly wholly in solution in it. Sometimes the serum becomes viscous or sticky, and a small quantity of it adheres to the surface of the globules of fat and like a coating of gum hinders their movement upwards.

A small quantity of lacto-fibrin occurs in milk after it is drawn from the cow, and its delicate mesh is similar to the fibrin which forms in blood, causing it to clot after it is drawn from an artery or vein. That also retards the separation of the globules of fat into cream.

In the mechanical method, centrifugal force is applied to the milk in a metallic bowl which is made to revolve very rapidly, in some machines at a rate of over 7,000 revolutions per minute. By the force thus applied, the serum of the milk is thrown outward against the resisting inside of the bowl, and the globules of fat are pushed inwards towards the centre. In the form of cream they are then conducted by a mechanical device into one vessel, while the serum, which is practically the skim milk, is conducted into another vessel. The machine which is used for this purpose is called a centrifugal cream separator.

The following paragraphs are based upon the information derived from tests conducted at the experimental dairies, of which particulars are contained in the annual reports of the Experimental Farms and Dairy Commissioner.

THE SETTING OF MILK.

1. All milk should be carefully strained immediately after the milking is completed.

2. When shallow pans are used, they should be placed in a room with a pure atmosphere, at a temperature as even as possible at between 50° and 60° Fahr.

3. When deep-setting pails are used, the water in the creamer or tank should be kept below 45° Fahr. or as