



A Campaign of Education.

THE hundreds of thousands of bicycles and automobiles have created a demand for better roads, both in city and out; this demand has created public sentiment in its favor which is felt in all parts of the country, and now the results are being reaped in more ways than one.

For the bicyclers thousands of miles of sidepaths have been constructed within the past five years; for the automobilists, farmers and the wheeling public generally, millions of dollars have been appropriated during the past twelve months for the improvement of country roads both in the United States and Canada.

The good roads train which started from New Orleans on its way north to Chicago, built the last one of about twenty-five miles of sample road at Effingham, a little town in Southern Illinois. Director Dodge, of the United States Public Road Inquiry, reports that five State Good Roads conventions were held in as many States along the route of the train, all of which were largely attended.

The Canadian good roads trains, which started out on a tour of the provinces in the month of May, are still in operation. Like the various trains, which have been started out in the United States, the Canadian have been fitted with road graders, wheeled scrapers, rock crushers and road rollers, but instead of loading this outfit on a railroad train the whole outfit is hauled over the country roads by means of traction engines. Owing to this fact the stops are more frequent, and it requires three different trains to cover the territory desired. The last session of the Canadian Parliament appropriated \$1,000,000 for this work and Commissioner Campbell, of the Department of Highways, says that every penny will be devoted to the construction of new roads during this season.

The good roads train, which was advertised so widely by State Senator Earle, of Michigan, and was scheduled to make a tour of the Middle West, East and South, building mile samples of good roads, has been called off by Governor Bliss, and the Senator has been requested to devote his energies to the improvement of the roads in his own State before he performs missionary work in others.

In the meantime the old Empire State has not been idle in this work for bettering the conditions of country roads. The State appropriated nearly half a million dollars for the work in the State, and during the year the applications for road improvement have come in so fast from the various counties that the State has been unable to keep pace with them, and they are piling up in the State Engineer's Office, who has already approved of plans for roads the cost of which amounts to twice that of the appropriation.

The cost of building a thoroughly good road is the chief obstacle in the way of rapid work, and anything that will reduce the cost will hasten the era of good roads. The farmers are now very generally in favor of the good roads movement, and, of course, the bicyclists and automobile clubs are in hearty accord.

As a means for reducing the cost per mile for the construction of good roads State Engineer Bond proposes to establish a State quarry. His plan for this will be presented for approval at the international gathering of good roads people at Buffalo. Engineer Bond has found that the very best material for good roads is trap rock, of which there is an inexhaustible supply on the west bank of the lower Hudson. The Palisades are all trap rock, but it is not his intention to meddle with them. There is plenty of the rock north of them. Just about opposite Sing Sing, near Rockland Lake, is the place he regards as an ideal one for the establishment of a State quarry.

The New York State Engineer's plan calls for the employment of the convicts in Sing Sing prison in quarrying the rock and converting it into road material. The place is close by the prison, is easy to reach and the cost of maintenance for the convicts there would be no more than in the prison. The objections which would apply to working the prisoners on the roads would not apply to the quarry, and at the same time their employment would be profitable to the State. As rapidly as the road material was prepared it could be sent to all parts of the State, and sold to the county engaged in road building.

An Appreciation.

Andrew M. Soule, professor of agriculture, University of Tennessee: "I beg to acknowledge with thanks a copy of Farmers' Bulletin No. 136 on 'Earth Roads.' I have read the same with much interest, and am glad to see that you present therein an engraving showing the great improvement that was made in our road system here in co-operation with your bureau. Our road is to-day as good as it ever was, and has

now been in use nearly three years, and is subject to a great deal of heavy hauling. I wish you could take a ride over it now and then go out on some of the streets of Knoxville that have been neglected for a period of three years. You would not be surprised, however, by such an experience, as you realize so well the value of a good road."

RESTRICTED VISION IN CITIES.

An Explanation of the Prevailing Practice of Wearing Glasses.

"Speaking of the practice of wearing glasses," said a well known optician in Canal street, "there is a curious thing about the human eye that the average person is constantly overlooking. We talk a great deal about the influence of color, about glare, and all that sort of thing. Unquestionably color has a great deal to do with the weakness of the human eye at this time. Glare figures as an important factor in the impairment of the human sight. In the matter of color there is so much rioting in these latter days that the eye is kept in an almost constant strain. Red is violently red, green violently green, and so on, until the eye is simply strained beyond the normal in an effort to visualize the hue, and hence the optic nerves are, in a measure, strained and injured. But this is not the greatest danger when we come to think of modern tendencies so far as the human eye is concerned. There are other conditions which are infinitely more injurious than the matter of color. The glare is bad enough, too. The electric and incandescent lights are simply fearful on one's eyesight. But the thing I quarrel with more than with any other influence is the condition which limits the scope of one's vision. The eye should have a broad range. One should have the opportunity of seeing a long distance. We are denied this opportunity. We are hemmed and hedged in until the distance we are capable of seeing is very short indeed. This is why I am a strong advocate of parks and promenades. Green is naturally a restful color, and if the city could be provided with long avenues and splendid parks, where one's eyes could stretch out in a long vista, it would be a great thing." —New Orleans Times-Democrat.

The Drop of a Penny.

Have you ever noticed the interest that money attracts, even if it is only a single cent? The next time that you see a copper coin dropped in a street car just observe. Every eye in the car will turn to the spot where it dropped, and there will be manifested a real general concern over its recovery. Two or three heads are likely to come in contact over the point of its disappearance, and then their owners will draw suddenly back and try to appear unconcerned; but in another second they are again leaning forward.

The man who dropped the cent is usually the first who appears to have brushed memory of the trivial occurrence aside, but just as soon as the eyes in the car have turned from him his own are sure to go back to the floor in the hope that the truant coin will be seen.

When he has gone there is a renewed interest among the passengers, for the stage of "finders keepers" has arrived, and those near the spot of disappearance become quite diligent until they are aware they make a centre of attraction. But interest in that little coin is not lost while there is a passenger left, and when the car is empty the conductor takes his turn and resurrects the cent.—Chicago Tribune.

What the Plodders Accomplish.

If we were to examine a list of men who have left their mark on the world, we should find that, as a rule, it is not composed of those who were brilliant in youth, or who gave great promise at the outset of their careers, but rather of the plodding young men who, if they have not dazzled by their brilliancy, have had the power of a day's work in them, who could stay by a task until it was done, and well done; who have had grit, persistence, common sense and honesty.

It is the steady exercise of these ordinary, homely virtues, united with average ability, rather than a deceptive display of more showy qualities in youth, that enables a man to achieve greatly and honorably. So, if we were to attempt to make a forecast of the successful men of the future, we should not look for them among the ranks of the "smart" boys, those who think they "know it all" and are anxious to win by a short route.—O. S. Marden, in Success.

An Alaskan Soldier's Equipment.

Major Bingham, quartermaster at Seattle, at the request of the Quartermaster's Department at Washington, has forwarded information for the dressing of a lay figure to represent the equipment of the United States soldiers in Alaska. One sketch represents a soldier with the mackinaw jacket and trousers, with muskrat cap, fur mittens and horsehide shoes. The cap is of an unusual style, being made to protect the ears, cheeks and nose, with openings only for the mouth and eyes. The points protected by this cap are those most easily frost bitten.



JEWELRY PERFECTION.

Ideas Have Changed Regarding Desirability of Solitaires.

Modern jewelry, and perhaps more especially summer jewelry, emphasizes the fact that the artistic side of America is growing. Time was, and not so long ago, a fashionable jeweler informs us, when the semi-precious stones simply could not be sold here. Even rubies and emeralds were sacrificed, when disposed of at all, at half or a third what a diamond of the same weight and quality would bring. Even in diamonds artistic mountings were not in any great demand. The idea was to acquire diamonds, as many as possible, and of a size that suggested one might realize on them promptly—a gambleresque sort of property that was fondly supposed to be ornamental as well as useful in times of need, when one's uncle would exchange it for spot cash. Not even the man who still sticks to this solitaire willingly pays a considerable amount to have it reset in one of the beautiful hand-carved mountings.

While summer is the time of times to display bracelets, owing to the elbow sleeves so general for house and evening wear, yet, we are informed, the tremendous vogue of the armband will not be entirely felt before autumn. There are, indeed, more designs under way than can be finished before fall. So far the snake is the winner. Jeweled snakes, their graceful scales built upon a spring, are first choice. The gold is manipulated in oriental effects, and is richness itself. A great favorite, too, is the new chain bracelet. These are set across the outside with five precious or semi-precious stones.

Smartest among the belt pins are the new ones in perfect safety-pin effect, the front being paved, with a row of diamonds preferably. It seems reckless to have these pins at the back of the belt, but, since we seldom hear of mishaps, no doubt they're safe enough.

The diamond barrettes are in the very same finish, little showing save the stones.

Platinum is still the smartest mounting for diamonds. Its whiteness may not add to theirs, but it certainly takes nothing away.

But it is in the colored stones that the newer art shows to most advantage. A ruby in an antique, rose-gold, hand-carved mounting is as gorgeous as a dream. Exquisite is a delicate pinky, baroque pearl in a very pale-rose-gold environment, with a few tiny starry brilliants by way of emphasis. Emeralds are better in the dark, greenish gold. But any and all stones are only mounted after due consideration.

The marquise ring is revived with a vengeance, especially for wear on the little finger. There's no more graceful shape than this long oval, and if well designed it is beautiful. A splendid example shows a long opal of wonderful quality. It is surrounded with diamonds.

Bow-knots are "it!" They have crowded out the whole family of bugs, insects and crawling things. They appear in brooches and pendants. One in diamonds shows each little streamer tipped with a diamond and an Alexandrite. The whole family of necklaces is more or less on graceful La Valliere lines.

Womankind is taking to fobs, the sportier the better. A very clever one is of black leather, with the cleverest charm, consisting of a gold horseshoe with diamond nailheads, and a platinum stirrup inside the horseshoe. It is a gem.—Philadelphia Record.

A Trying Fashion.

If the craze continues, everything will be collarless soon. The blouse is trying to discard its collar, and already many smart women are wearing new spring dresses that have nothing whatever in the form of a neck covering. In the majority of cases the effect is that the dainty little chemisette and collar of lace or soft silk has inadvertently been forgotten, says Home Chat. Without even a frill of lace or ruch of chiffon to soften the edge of coat or dress where it meets the soft white flesh, even the owners of the most beautiful throats need to think twice before accepting this fancy.



For young girls there are more lace fichus sprinkled with forget-me-nots.

Red popples and wheat encircle a wide, drooping rimmed hat of a deep straw color.

One of the lovely summer muslins is in black and white, flowered with purple laburnum.

Dainty little toques with iridescent straw and horsehair braid are trimmed with orchids and tulle.

Ecru net trimmed with guipure lace makes a pretty and inexpensive evening gown for summer wear.

Handkerchiefs of mixed cambric and silk, with striped pattern are very soft, and are intended for outing use.

One of the newest boas is made of brown tulle with green moss endings and finished with green satin bows.

It is said that Oriental embroidery is to be used extensively in the garniture of handsome fall and winter gowns which are being made by the leading houses abroad.

Sunshades of navy blue silk, with emerald green hemstitched edge are a decided novelty. Other styles of parasols are green with blue edge and white with colored edge—green or blue.

A toque formed of shaded nasturtiums was worn with an effective brown costume seen recently. The material was cigar brown canvas trimmed with embroidered taffeta to match and coffee colored guipure.

Tussore silk is one of the favored materials this season. The pale tan tinting of this silk combines well with Irish guipure lace, which is used for yokes, sleeves and entire zouaves. Emerald green velvet is sometimes used to give a dash of color.

A hat of brownish yellow crinoline straw is trimmed with black velvet ribbon, buttercups and black and yellow Marguerites. The velvet ribbon is twisted in and out of the flat crown, the buttercups are in a long stalked wreath on the brim and the other flowers cluster at the side.

A Suicidal Cow.

The stupidity of the average cow is proverbial. The species endowed with suicidal tendencies, however, apparently can display a tenacity of purpose highly embarrassing to those in charge of such of the breed. This was the experience of the officials at the Tay Ferries when an animal of the kind proceeded to execute its morbid design of self-destruction. The "cow" arrived by the midday boat, and no sooner had it been transferred to the Craig Pier than it walked deliberately to the edge, gazed for a moment at the waters below, and, eluding the vigilance of its owner, plunged into the sea. The coldness of the water evidently carried the conviction that the temperature on shore was preferable, for the animal immediately struck out toward the east side of the harbor. It would probably have reached its goal had it not been so unfortunate as to meet a mishap not altogether uncommon down Tay Ferries way; it stuck in the mud. Two athletic piermen, armed with a stout hempen rope, lost no time in hastening to the rescue, and, after several futile attempts, succeeded in encircling the line round the animal's horns. A long pull and a strong pull followed, resulting in the liberation from the mud of the cow, which ultimately regained the shore, its fiery temperament subdued by its immersion in mud and water. Fully half an hour was spent endeavoring to rescue the animal, the operations being watched with considerable amusement by a large number of spectators.—Dundee (Scotland) Advertiser.

A Frequent Cause of Fire.

"Children playing with matches cause a great many fires," said a member of the fire department a few days ago after returning from a fire that had been caused in the manner stated. "There is reason for such fires," the fireman added. "It seems that people ought to keep matches out of the reach of children and it would be a very easy matter to do so. Match safes could be hung on nails or pegs driven so high above the floor that children could not reach them, even if they stood upon chairs. By taking a little precaution in the matter many disastrous fires would be prevented and some fatalities avoided.

"Only a few days ago, the fireman said, "a child was seriously burned while playing with matches, and only the early discovery of the flames prevented what might have proved a serious conflagration. Many people are entirely too careless in this matter and by the exercise of ordinary care much serious damage would be avoided.

"If people would only take this matter seriously and act accordingly, they would find at the end of the year that there would be a good showing made so far as the fire fatalities are concerned." —Washington Star.

Something About Gardeners.

A skilled gardener commands easily a salary of from \$1500 to \$2000 a year. There are a dozen such men in this city, who have ten or more assistants, and who devote their own time only to the highest branches of the gardening art—to making orchid seedlings, to grafting and to originating new species of flowers. These men write for horticultural magazines and get their photographs in horticultural papers. Some of them have whole boxes full of medals and ribbons from various flower shows. As a rule they are foreigners. They serve, in learning their art, an apprenticeship that is much longer than the course of a medical college or a law school.—Philadelphia Record.



A firm in Germany controls a patent for extracting fibre from wood, and is spinning yarn from the material. It cannot be bleached easily, but is capable of being dyed with good results. It is asserted that cloth manufactured from this fibre is suitable for tailors' linings, bed tickings, curtains, etc. A factory to manufacture such goods will be established at Bilbao, Spain.

A very curious case of acetylene lighting is reported from Germany, at Stadtbach, in Augsburg. At this point there is a large cotton mill, which derives its power from a waterfall a little over a mile distant. The natural conclusion would be that electric lighting would be adopted, but, owing to the liability of the turbines being stopped at intervals during winter, owing to ice, it has been decided to employ acetylene, which can, at least, be depended on for continuous service.

One of the astronomers at the Brunsels Observatory has taken several excellent large-size photographs of the sun when near its setting that show very distinctly the oval appearance it sometimes has at that hour. Everybody is familiar with the fact that the sun appears larger when near the horizon, by which the lower edge of the sun seems to be lifted with reference to the upper edge, giving the disk the appearance of being compressed. In one of the photographs referred to the oval shape is very noticeable, the ratio of the vertical to the horizontal diameter being as seventy-five to eighty-four.

In the city of Tacoma some scientific sharps have discovered a way to do in two days what it has heretofore taken nature 1,000,000 years to accomplish, according to geologists. Gypsum is what has been called for convenience "young marble"—that is, if left to itself some thousands or millions of years it would become marble. These Tacoma sharps are now shaping their gypsum with lathes and chisels—it is soft and easily worked—and then subjecting it to a secret treatment which makes it really marble of a very high quality. The gypsum is brought from mines in Alaska. It is said to be exactly the same substance as goes to form marble.

Photographic surveying is being used by the United States Government engineers in the work in Southeastern Alaska. Captain Pratt, of the United States Coast and Geodetic Survey, in a recent paper before the Pacific Northwest Society of Engineers, called attention to the cheapness of this method, especially in surveying the mountainous coasts along Bering Sea. In many cases where ordinary surveys were absolutely prohibited by their cost, he said, the camera could be used for extensive surveys at a very small cost as compared with other methods. The Canadian Government has also adopted photographic survey methods in carrying out similar extensive work.

Brain and Intellect.

The exact seat in the brain of the highest intellectual faculties has formed a moot point in science since the functions of the organ of mind began to be investigated with accuracy. The general opinion localized what we term "mind" in the pre-frontal lobes of the brain, but by another school of thinkers the hinder lobes have been credited with performing our highest cerebral duties. The balance of evidence is decidedly in favor of the former view, and recent researches and observations by Dr. Phelps, an American investigator, would appear to assist in strengthening the opinion that the most important portion of the brain is its anterior region. In the course of the investigations in question some 295 cases of brain injury and disease were examined. In all save two it was noted that interference of extensive nature with the pre-frontal region resulted in serious disturbance of the mental faculties. Less severe injury produced less marked effects. These facts parallel the researches of other investigators, and they are further substantiated by what is observed in cases of idocy connected with a want of development of the frontal lobes of the brain.—London Chronicle.

Hollow Wall Safes For Smuggling.

An exceedingly ingenious scheme for smuggling firearms into South Africa was recently discovered by the Customs House authorities in London. It was noticed that a rather heavy trade in fire-proof safes was being done with friendly ports, and a seizure and investigation disclosed the fact that the walls of the safes were hollow, and the space utilized for rifle barrels and ammunition. The rifles were dated 1881, but were brand-new.

Biggest Sheep Population.

The State of Utah has more sheep than any other similar area of land; her total is 8,700,000. New Mexico has about 6,000,000.