



"BICYCLE" HAS FOUR WHEELS

Improvement Recently Made in Motorcycle Design, Bringing it Nearer to Automobile.

An improvement has been recently made in the design of the motorcycle, which brings it nearer to the automobile class. It has a carriage body and seat which gives it more the appearance of an automobile, but the greatest innovation is the introduction of auxiliary wheels, one on either side, by which the vehicle is instantly transformed into a four-wheeler. This change is desirable when the operator is wending his way through crowded streets where it is necessary to move slowly or when it is necessary to come to a stop. The additional wheels are



Four-Wheeled Motorcycle.

quite small, but large enough to answer all purposes and are controlled from the handle bar. This improvement will make the motorcycle available to many who otherwise are afraid to make use of it, on account of the necessity of maintaining a rather high rate of speed in order to keep the machine in an upright position.

LARGEST ANIMAL IN WORLD

Represented by Colossal Skeleton of Whale Eighty-seven Feet Long in New Zealand Zoo.

What is claimed as the largest animal in the world is represented by a colossal skeleton in the museum of Christchurch, New Zealand. This is the remains of a large specimen of the blue whale stranded on the coast of that country. This whale is probably the largest of all living animals. The length of the skeleton is 87 feet, and the head alone is 21 feet. The weight of the bones is estimated at nine tons. This gigantic whale gets its name of blue whale from the dark bluish-gray of its upper surface. The tinge of yellow on its lower part has led to the name "sulphur bottom," by which it is known on the western side of the Atlantic. It is otherwise known as Sibbald's roqual (Balenopectera sibbaldii).

The chief food of this gigantic animal is a small marine crustacean (Trypanopoda inermis), known to the whalers as "krill." Another species of the same shrimp-like group has been obtained in thousands from the stomachs of mackerel caught on the Cornish coast. The nearly related opus shrimp, found in enormous number in the Greenland seas, form the chief food of the common whale. Some of the thysanopoda are phosphorescent and contribute to the luminosity of the sea.

PLANT LOOKS LIKE INSECTS

Spots on Orchid Resemble Flies and Bees—imitations Are Puzzling to Flower Scholars.

Orchid imitations are a puzzle to flower scholars. The whole appearance of the flower is suggestive of some insect, sometimes to quite a remarkable degree. It does not seem easy to find any real purpose that could be served by this resemblance, yet no one imagines that it can be accidental.

Any one who knew of the bee orchid, a native of Europe, and came upon it for the first time would at once recognize it. It seems to be a large velvety brown backed bee variegated with yellow. The two lateral petals might serve well for the wings of the insect. In the center of the lip of the fly orchid there is a small bluish spot like the body of a fly. The two lateral petals are slender and curiously like the antennae of an insect. The whole illusion is complete and suggests to the casual glance that a few flies are hanging on the stem of some plant which has cast its flowers.

FINGERS AND FORKS.

"You must not use your fingers, dear. A fork will do instead." Mamma looked down upon her son, and gravely shook her head. "It is not nice for little boys to use their hands that way. I'm sure, to hold a knife and fork you learned the other day." "But why?" asked Jacky, little rogue. "His eyes aglow with fun, he glanced from mother's earnest face, to breakfast just begun. 'I'm sure in everybody's mouth, this silver fork you've seen, My fingers only go in mine, And they are nice and clean.'"

ADVENTURE IN BUGTOWN.



The rules are very strict in Bugtown, so they say; And so it's very hard to bathe upon a summer's day.

For instance, on a pitcher Of lukewarm milk a crowd Of bugs once spied this warning: "No Bathing Is Allowed."

One bug, who was more daring Than all the rest exclaimed: "I'll show you that I'm not afraid, And make you all ashamed."

So he put on his bathing suit, And took a little dive— The bugs who were less daring Are even now alive.

BOYS IN INTENSIVE FARMING

Twelve Thousand Southern Lads Show How Productiveness of Land May Be Increased.

More than 12,000 southern boys less than eighteen years old planted and cultivated an acre of corn each year under the direction of the department of agriculture. Persons interested in the experiment in Arkansas, Mississippi, South Carolina and Virginia offered to pay the expenses of a trip to Washington for the boy in each state who raised the greatest amount of corn on his acre. The winning boys will soon visit the national capital.

The average yield of corn to the acre in 1909 was a little more than twenty-five bushels. The South Carolina boy, who made the best record, produced 152½, says Youth's Companion. If they should be followed exactly the yield of corn to the acre could easily be doubled in a single year.

Intensive cultivation is worth while on all crops. The average yield of potatoes to the acre in 1909 was 107 bushels, but the Maine farmer averaged 225 bushels, and some of the more progressive of them dug 400 bushels to the acre. The yield of corn and potatoes depends more upon cultivation and fertilization than upon the soil, and there is practically no part of the United States in which these crops cannot be raised successfully.

It is beyond doubt that larger crops can be produced from ten acres thoroughly tilled than from two or even three times ten acres cultivated as they usually are. The fact that the South Carolina prizewinner raised more corn on one acre than the average farmer produces from six tells a story that should not be lost upon those for whose benefit the experiment was made.

NOVEL COASTER FOR YOUTHS

Healthful Device Can Be Used as Racer, Cart, or to Glide Merrily Down Any Hill.

An entertaining and healthful device for children has been invented by an Ohio man. It consists of a triangular base portion with two wheels in back and a steering wheel in front. From the steering wheel a handle rises high enough to be within comfortable reach of a person standing on the footboard in the rear. With one foot on this board and pushing with the other foot, a boy can attain a remarkable speed with this device and can have many a good race with his friends. Another use for it is as a regular coaster, for gliding down hill, though as has been seen it can be pushed up hill and has therefore an advantage over most coasters, especially those that depend on snow. Finally, the device can be used as a cart, there being an attachment that serves as a seat. Being of such light construction, the small boy will find it much easier to pull his comrades on this than on the ordinary wagon, and it is very strongly made so there is no danger of a breakdown.



Light and Easy to Pull.

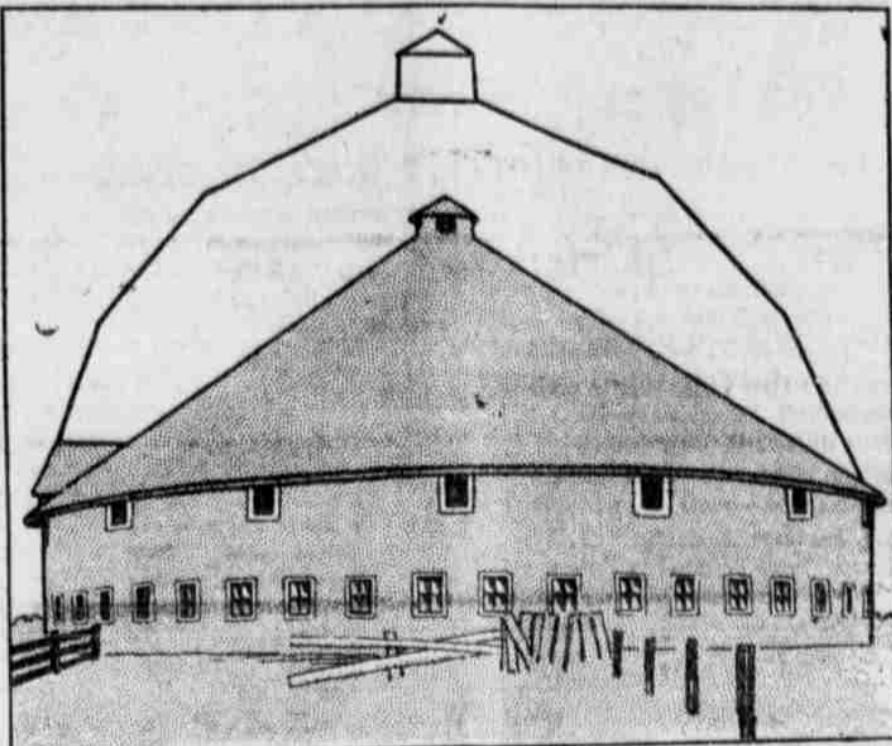
markable speed with this device and can have many a good race with his friends. Another use for it is as a regular coaster, for gliding down hill, though as has been seen it can be pushed up hill and has therefore an advantage over most coasters, especially those that depend on snow. Finally, the device can be used as a cart, there being an attachment that serves as a seat. Being of such light construction, the small boy will find it much easier to pull his comrades on this than on the ordinary wagon, and it is very strongly made so there is no danger of a breakdown.

Durable Bubbles.

To make bubbles that can be blown big and will last take a piece of pure white soap about the size of a walnut and cut it up in a cupful of warm water. Then add a teaspoonful of glycerine. Stir well and blow from a small pipe. Strawberry juice will make pink bubbles, and orange juice will make yellow ones.

STRENGTH AND CHEAPNESS OF ROUND DAIRY BARN

Several Points of Superiority Over Rectangular Formed Structure Have Never Been Fully Considered.



Round Dairy Barn.

In the early days when lumber was cheap, buildings were built of logs, or at least had heavy frames. Under these conditions the rectangular barn was the one naturally used, and people have followed in the footsteps of their forefathers in continuing this form of barn. The result is that the economy and advantages of the round barn have apparently never been considered. This is because they are not obvious at first sight, and become fully apparent only after a detailed study of the construction. For these reasons, the rectangular form still continues to be built, although it requires much more lumber. As the price of lumber has advanced so materially in recent years, the possible saving in this material is a large item, and well worth investigating.

The difficulty with most round barns that have been built, thus far, is that they do not have a self-supporting roof, and consequently lost many of the advantages of a properly constructed round barn. This is the principal reason why round barns have not become more popular. A straight roof necessarily requires many supports in the barn below. These are both costly and inconvenient, and make the roof no stronger than a dome-shaped, self-supporting roof which nearly doubles the capacity of the mow.

Many who have thus disregarded capacity have also wasted lumber and made a needless amount of work by chopping or hewing out the sill and plate, thus requiring more labor and lumber, besides sacrificing the greater strength of a built-up sill. Another reason for the scarcity of round barns is the difficulty in getting them built. Most carpenters hesitate to undertake the work because in the erection of a round barn the construction should be entirely different from that of the rectangular form. Many new problems present themselves, but when these are once understood, the round barn offers no more difficulties in construction than the rectangular form.

The first thing to consider in the erection of a barn is a convenient arrangement for the purpose for which it is to be used. Considering that the barn on a dairy farm is used twice every day in the year, and that for six months each year the cows occupy it almost continuously, and that during this time

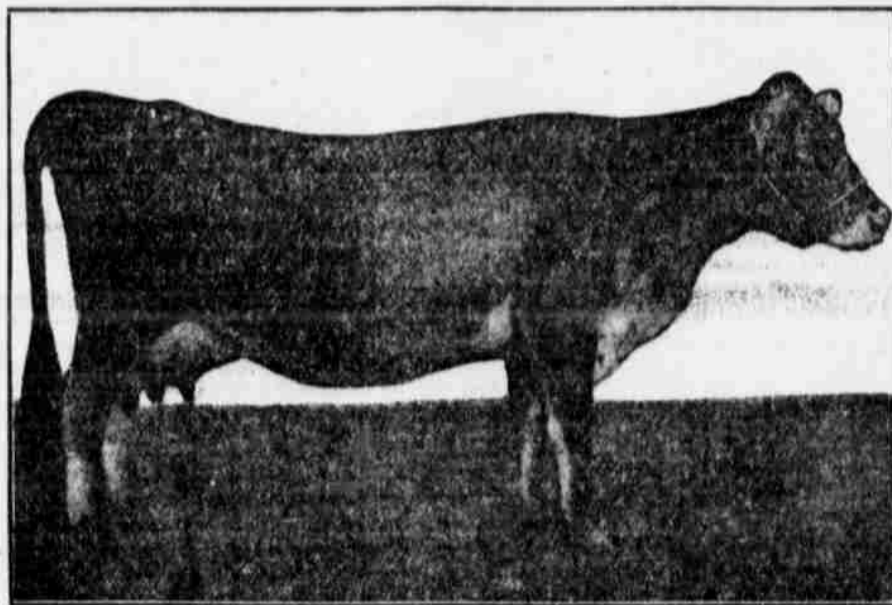
a large amount of the labor of the farm is done inside the barn, it is evident that the question of its convenience is a vital one.

The circular construction is the strongest, because it takes advantage of the lineal, instead of the breaking strength of the lumber. Each row of boards running around the barn forms a hoop that holds the barn together. A barrel, properly hooped and headed, is almost indestructible, and much stronger than a box, although the hoops are small. This strength is because the stress comes on the hoops in a lineal direction. Any piece of timber is many times stronger on a lineal pull than on a breaking stress.

All exposed surfaces of round barns are circular, as both the sides and roof are arched, which is the strongest form of construction to resist wind pressure; besides, the wind in striking it, glances off and can get no direct hold on the walls or roof, as it can on the flat sides or gable ends of a rectangular structure. If the lumber is properly placed in a round barn, much of it will perform two or more functions. Every row of siding boards running around the building serves also as a brace, and the same is true of the roof boards and the arched rafters. If the siding is put on vertically and the roof built dome shaped, no scaffolding is required inside or out. These are points of great economy in the round construction.

All exposed surfaces of round barns are circular, as both the sides and roof are arched, which is the strongest form of construction to resist wind pressure; besides, the wind in striking it, glances off and can get no direct hold on the walls or roof, as it can on the flat sides or gable ends of a rectangular structure. If the lumber is properly placed in a round barn, much of it will perform two or more functions. Every row of siding boards running around the building serves also as a brace, and the same is true of the roof boards and the arched rafters. If the siding is put on vertically and the roof built dome shaped, no scaffolding is required inside or out. These are points of great economy in the round construction.

EXCELLENT BROWN SWISS COW



The Brown Swiss is one of the standard breeds from Switzerland. It has become generally distributed throughout Europe and was first imported into the United States in 1869. Brown Swiss cattle are well adapted to conditions when a combination of dairy and beef production is sought, says Orange Judd Farmer. The size is medium; cows weigh 1,200 to 1,300 pounds. The quantity of milk is moderately large and the fat content good. According to the American standard, the color is dark to light brown, or some seasons of the year gray. The attractive cow, here shown, Folie 1552, was bred in New York and

made a record of 4,403 pounds milk in 120 days.

Sowing Late Cabbage.

It is time to sow late cabbage in all sections. See that the seed bed is fine and moist. Cover seed with not less than three-fourths of an inch of soil and do not sow too thickly. Thin sowings encourage the growth of strong, stalky plants which stand transplanting better than spindling plants.

Always pick vegetables for the market before they are fully matured, as they are then more apt to ripen at the proper time for the user.

IN THE LIMELIGHT

TO HEAD MONEY HEPTARCHY



J. Pierpont Morgan, Jr., whom Thomas Ryan says is to head an American financial heptarchy, recently has been visiting some of the vast property interests to which he is to fall heir. Young Morgan marveled at the huge steel plants in Pittsburg, a part of the United States Steel corporation—the trust—which is controlled by his father. He also visited the mills at Gary, Ind., which are growing so rapidly, and found much to ponder over there.

Although the impression is far from general, young Morgan is in many ways much like his father. He may not have the latter's organizing genius; that remains to be seen.

But he has the dominating personality and aptitude for business that made the elder Morgan even a decade ago and before he crowned his organization exploits with the formation of the greatest of all industrial combinations—the United States Steel corporation—such a towering figure in the financial world. And for years the younger man has taken an active part in the affairs of both the London and New York houses of J. P. Morgan & Co. But it was not until a year ago that J. P. Morgan, Jr., entered the domain of corporate finance and management.

His election to the directorate and finance committee of the United States Steel corporation and his entrance to the National City bank board of directors indicated unmistakably the purpose of the father to familiarize the son with more important views than devolved upon him in the ordinary routine of even so great a banking concern as that of J. P. Morgan & Co. Young Morgan is much like his father, physically, as well as mentally. He is tall, robust and fine looking. The temperaments of the two men, however, have little in common. Morgan, Sr., is brusque and saturnine. Morgan, Jr., is genial. What is called personal magnetism is one of the assets that have made him extremely popular in both business and society.

He is also an athlete and outdoors man, this heir to \$300,000,000 and the most lucrative banking business in the world, and an ardent sportsman. Sceldom does he miss the New York Yacht club's races on Long Island sound, where even in the worst of weather and in his oilskins, looking like the hardest of Gloucester fishermen, he handles his smart 30-footer lily in mastery fashion.

GORST EGYPT'S REAL RULER



The famous speech which Col. Theodore Roosevelt made in London, following the one which he made in Egypt, has attracted attention to that country, and to Sir Eldon Gorst, British agent and consul general in Egypt, who was the real ruler in that part of John Bull's domain.

Sir Eldon Gorst succeeded Lord Cromer in Egypt a little more than three years ago, but previously he had had much experience in that country. He first went to Cairo in 1886 as an attache and has been promoted gradually to his present position. The criticism against him is that he is too conciliatory; that he has not been sufficiently firm in dealing with the Nationalist press which even goes so far as to advocate assassination of the British government representatives. He is a native of New Zealand and is forty-nine years of age. Recently Sir Edward Grey, foreign secretary in the British cabinet, eulogized Gorst and his administration of Egyptian affairs, but in spite of this Gorst is to be replaced by Sir Arthur Hardinge, cousin of the newly-appointed viceroy of India. There is an effort to make it appear that the Roosevelt speech had nothing to do with Gorst's removal, but the people generally accept the idea that the government is taking the ex-president's advice and will rule in Egypt with a curb bit in the future.

Egypt owes her present prosperity to the security which comes with the "foreign joke," but there exists a Nationalist party, the ambition of which is independence. Mr. Roosevelt, in addressing these Nationalists, bluntly told them they were not fit for self-government and would not be for several generations.

In England, Mr. Roosevelt followed this up by telling the British their duty was plain. In effect he said that if Great Britain had no right in Egypt it should get out. If it had a right there, then it should rule with a firm hand and establish and maintain order at all costs.

OLD GUERRILLA CHIEF OUT



Col. John S. Mosby, the famous Confederate guerrilla of Civil War days has lost his position as a special attorney in the department of justice, after eight years there.

In the absence of Attorney General Wickersham no explanation was made at the department. Old age, that nightmare of superannuated government employes, it is understood, was the main reason for the dismissal.

Col. Mosby is about seventy-three years of age. To his old friends he appears active and energetic. He has been blind in one eye since he was a young man, and lately has been getting deaf.

The colonel's history as a fighting man, his achievements with a small band of guerrillas during the great war between the states, has given him a place in history that has marked him for distinction for many years. He was appointed a special attorney of the department early in the first part of the Roosevelt administration, and was assigned to break up the cattlemen's operations against government lands in the middle west. His fearlessness in this work, in spite of numerous threats, won him the approbation of President Roosevelt. The colonel was one of the investigators of the case which recently led to the sensational charges made by Senator Gore, and his dismissal so soon afterward is regarded as significant.

Colonel Mosby became a Republican some time after the Civil war, believing that to be the best method for securing concessions to the south. He was a special favorite of General Grant, who kept him in the best federal positions to be had and consulted him often as to important government matters.

RAIL CHIEF HAS A SCHOOL



H. E. Byram, vice-president of the Burlington system, has been teaching school in St. Louis. Naturally it is a railroad school and notable from the fact that the occasion was the first upon which the man who recently shouldered the responsibilities of operation of the Burlington System had been in St. Louis.

From the time Mr. Byram left the Chicago headquarters he became a peripatetic pedagogue—a traveling teacher as it were—for he is going all over the Burlington System, meeting members of the operating and traffic staff at division and district headquarters and holding little educational meetings.

He had a school composed of local celebrities in St. Louis. One was W. A. Taloe, assistant general passenger agent, who is studying the question of how to make easy, comfortable and safe riding for passengers. Then there was William Gray, general freight agent of the Missouri district lines. He has up for solution the question of the rapid, correct and safe transportation of freight at compensatory rates.

Tom Knight is making a deep study of how to be a division superintendent and Theodore Rochm is just finishing an elaborate course on promotion in the ranks of the general passenger department.

J. G. Delaplaine has made large advances in the art of "gulding right" the victims of "wanderlust" if they are headed west of Chicago and St. Louis. His last examination papers showed a remarkably high average.