The AUTOMOBILE

FARM LIFE HAPPIER.

The farmer does not now have to stay at home if he has a car. He does not feel himself rooted to the spot. His wife and children will be happier and more contented. An automobile brings freedom—freedom from isolation, freedom from long hours, freedom from the limitations of time and distance.

To the farmer a car is far more than a mere luxury. It is a vital necessity to him and his family. It offers a welcome relief. It makes him a better worker by giving him recreation and pleasure he could not otherwise have. Its broadening mental effect is one of its greatest benefits to him.

Once the farmer has an automobile he soon finds himself looking forward to summer evening rides with his family, with the cool breeze blowing away the fever heat of the day's work in the fields. He finds himself able to go on pleasure trips, to picnics, and so on, with his wife and children, which hitherto he was unable to enjoy because of the distance to be covered in the time at his disposal. Many a man has reported that he doesn't feel the

Hard Work of the Farm

as much as he did before his car gave him the needed relaxation.

A man can't get the same rest and relaxation out of a horse. In the second place, the chances are he is sorry for the brute. If a man has any sympathy and feeling for animals he knows that they must have rest over night and on Sundays. A horse is too slow and the distance he can cover is too small for any one really to get any great amount of recreation from an evening's drive. At the same time, an automobile costs money only when in actual use, unlike the horse, which is a constant expense.

In winter instead of hugging the fire, trying to keep warm, and dreading the next trip, he will have to make to town, the farmer can go and come with comfort and just as often as he pleases.

The automobile also facilitates communication and intercourse, and because it does it is one of the foremost influences in fostering a strong sense of good fellowship and fraternal co-operation among farmers.

When the church, the school and the grange flourish, the opportunities for recreation and

Social Betterment

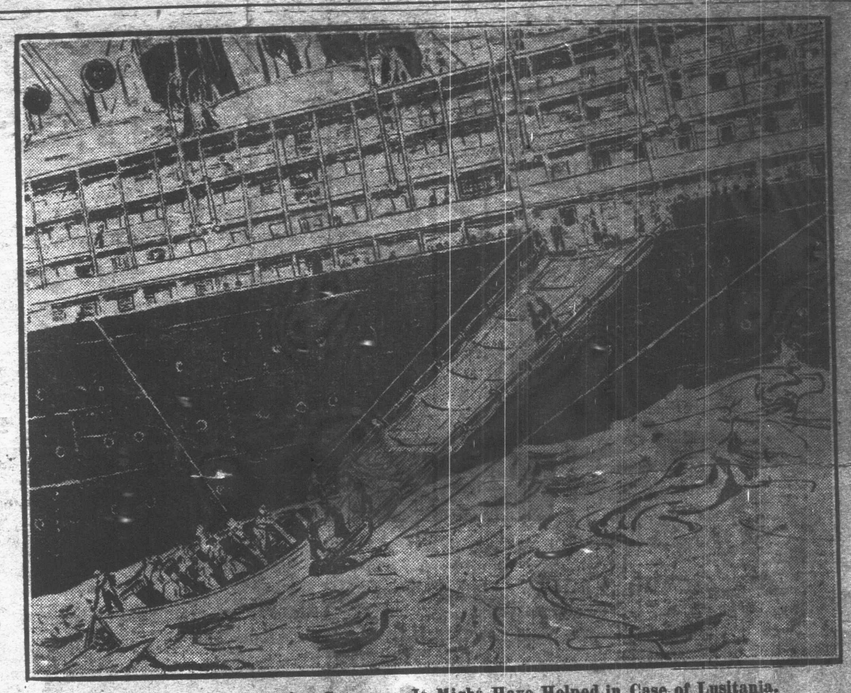
are naturally multiplied. In enabling the farmer to make the most of these institutions the automobile helps to support and develop them and also renders its owner one more invaluable service.

This influence of the automobile is only natural. When a man shuts himself off from his neighbors and sees very little of them he soon loses interest in them or what they are doing. He gets so that he cares very little about anything but what is taking place in his own little sphere. He builds about himself, as it were, a Chinese wall of indifference.

Another argument for the car on the farm lies in the fact that while in the city the working unit is generally only the head of the family, on the farm all hands turn in and help. There is work for young and old. And while the farmer himself does his full share, he has certain advantages, as compared with his faithful helpmate, who is not only tied down to the house, but also probably has the cares of a family of little ones.

Progressive farmers to-day appreciate that the women folk deserve a better, brighter life. And nothing has made the life of farm women brighter and broader than the automobile. An hour's ride—a visit with laughter, song and gayety, do more to erase the marks of care and preserve the roses of youth than any other means.

And of course if an automobile in the family proves beneficial to a man and his wife, it cannot help making a big difference in the upbringing of the children. A car provides just the safety valve needed to let out the excess energies and spirits of the growing boys and girls on the farm. It gives the former city advantages, without city drawbacks.



The Emergency Marine Gangway—It Might Have Helped in Case of Lusitania.

This ingenious and practical means for enabling passengers to embark to lifeboats, or for the reverse operation after rescues have been performed during stormy weather at sea, is the recently patented invention of Captain Arthur N. McGray, a widely-known ship-master. It has been carefully examined by many experienced authorities and officers who have participated in recent noteworthy rescues and bears their highest endorsement as answering the recommendation of the London Conference on Safety at Sea that "suitable arrangements shall be made for embarking the passengers in the boats."

This structure is portable and quickly thrown into operative position. It consists of two long booms, which are swung out at right angles to the side of the ship, about fifteen feet apart, and have suitable floats attached to their outer ends. Between the booms is stretched a strong wire net over which passengers can readily pass. The equipment is held securely in place by guy-lines. Thus, lifeboats are lowered to the water with only a working crew in them. When safely afloat the boat is brought headon to the outer end of the emergency gangway and there temporarily moored, while, under the direction of an executive officer, the proper number of passengers only are permitted to enter the gangway and thereby "safely and sanely" reach the waiting boat.

In the case of the Lusitania, several boats full of passengers were capsized as they struck the water, and many lives were lost which might have been saved had some such device as that shown above been in operation.

IN GREAT DEMAND.

Immense Quantities of Ice Cream Consumed.

Ice cream dealers are making plans for a busy summer, the period of their greatest prosperity. A large city on a good hot day, consumes about 50,000 gallons, or 200,000 quarts of ice cream. One big firm alone has been known to sell 20,000 gallons in the space of twenty-four hours, which shows just what a great city can do when it goes out on an ice cream celebration.

The trade is one which is affected very quickly by weather conditions and the reports from the weather bureau are scanned closely in order that the proper amount of ice cream for a certain day can be made. While the product can be manufactured and stored in coolers for future use without the slightest deterioration, still the fluctuations are so great that a uniform output each day cannot be maintained. A drop in temperature coming over night will send the ice cream business to a fraction of what it was on a previous hot day.

The first indication of a hot spell in summer finds the big freezers working at full capacity to prepare for the emergency. Cooler weather will mean a decided diminution of the product and a building up of the stores of milk and cream in country depots to be drawn on as soon as the situation improves. By making a study of the business and through the experience of long years, the larger concerns know the proper way to go about assuring themselves of steady incomes. As their production decreases their supplies increase, and vice versa, so there is no real loss.

Vanilla ice cream forms about two-thirds of the output, with chocolate second and strawberry third. Vanilla, while being the most popular, is used to a great extent in soda fountains, where it is put up in drinks of various other flavors. This accounts in a large way for its supremacy.

KRUPP'S BIG STEEL WORKS

WHAT AN OUTSIDER SAW IN THE GREAT STEEL PLANT.

It Is Remarkable the Easy Way Metal is Worked in Making Gun Barrels.

I thought it very strange that Krupp's should take my photograph surreptitiously. It savored somewhat of prison procedure, writes a correspondent in the Philadelphia Ledger. Undoubtedly, they required my photograph for some means of identification if need arose. They desired to make sure of recognizing me again. I have no doubt now that they wanted my portrait for their secret service—for Krupps' have the most perfect secret service in Christendom, with agents all over the world—and when the Allies get to Essen I expect they will find that photograph of mine in the archives of Krupp's. At the time I thought it queer treatment to mete out to a guest.

Dealing a Heavy Blow.

"You mustn't be surprised at anything that happens here," said my friend. "The officials here have to take care. By the way, is isn't wise to go wandering about or you might get into trouble. You wont' forget to keep close beside me."

"Fritz," I found out, was the pride of Krupp's—a giant steam-hammer that has been in use since 1860. People thought Alfred Krupp mad when he started to build "Fritz." The hammer cost $500,000, and is as good to-day as ever, so it has repaid its cost many times over in its half-century of hard hitting. Kings have cracked nuts with it. I did the same. I placed a nut beneath it, and "Fritz" cracked it perfectly without so much as touching the kernel. Yet the same hammer can deal a blow of 50 tons which no metal can withstand.

I was told that there were 160 of these great steam hammers in the place. I can quite believe it, for I saw a large number, and if the facts are correct, they must have cost several millions of dollars to build. I noticed, however, that even in Krupp's they cannot get on without Britain, for at least one steam hammer I saw was made in Sheffield.

Miracles of Science.

The noise, of course, was maddening. Wherever you go at Krupp's you cannot get away from the clanking and hammering of metal. Even where there is no hammering going on you can hear the sounds from afar.

An official said something to my friend, who turned to me and remarked: "Come along. If we hurry we shall be just in time to see a sight you will never forget."

So we hurried to a great steam hammer at the other end of the long workshop. "Don't stand too close," came the injunction.

A mighty mass of glowing white-hot metals came gliding along an overhead rail and came to rest under the hammer. Then the hammer began to work. The steel seemed like dough. It was kneaded and stretched and pulled and shaped until it got longer and longer. I have never seen anything like it before.

"What are they doing?" I asked.

"Making a gun barrel."

What struck me as remarkable was the easy way the metal was worked. It might have been potter's clay instead of steel, so soft did it appear to be. Of course, it was the tremendous force exerted by the hammer which made the metal so ductile.

Before I had time to wonder I was conducted to another workshop, where I saw some huge shears cutting through armor-plate four inches thick just as though it had been putty. It seemed incredible, but then most of the things at Krupp's savor of miracles. A few minutes later I saw armor-plates 10 inches thick being bent as though they were sheets of tin.

Wheels of Woe.

I saw the Krupp armor made, but I have not the space to describe the process. It was very strange to see the armor rolled out to various thicknesses just like so much pastry. After witnessing the various temperings it has to go through and the baths and scourings and rollings, I realized it must be costly. But I was rather staggered when I found that armor-plate made on the Krupp principle costs $550 a ton, and that there is about $2,500,000 worth around the hull of a modern battle cruiser.

"It's wonderful!" I exclaimed.

My friend only smiled. "We'll go along and see how they make the celebrated weldless steel wheels for artillery," he said, "and then we'll let you into the great secret of making crucible steel—the secret which gave birth to these works."

We went outside. A motor-car was waiting.

"Get in," said my friend. "It's a bit too far to walk."

In a few minutes, after having to pull up once or twice to let a works train of trucks go by, and after being jostled across railway metals, we stopped outside another big workshop.

"Here we are. This is where the wheels are made."

In the Hands of the Potter.

It was a vast workshop, and all over it were molds for wheels. We watched men pour the boiling liquid into the molds. And we watched the metal gradually harden. And we watched the workmen lift up the molds and disclose the completed wheel. Some of the wheels seemed to me to be more like the wheels of locomotives than of gun-carriages. It seemed I was right.

The output of this one workshop alone must have been tremendous, for it was between two and three hundred feet wide and over an eighth of a mile long. A big gallery ran all round it, and there was a perfect maze of girders about the roof, while several suspended cranes swung up huge boilers in the making and ran about with them from one end of the building to the other. Nor did the workman stop to stare at us. They ignored our very existence and went on with their work as usual.

"I think we'll go now and have a look at the pottery."

"Pottery?" I echoed.

"Yes. The molten metal for making cast steel is carried in clay pots and they turn out five thousand of these pots in the pottery every day."

So to the pottery we went, and when we had seen the men busily engaged in making crucibles, as the earthenware pots are called, we departed for the place where the celebrated crucible steel is made.

What an animated scene met my eyes. Men walked about rapidly in pairs carrying between them crucibles full of white-hot liquid steel on long metal bars. There was no faltering or hesitation on their part. They journeyed straight to the particular mold at which they were engaged, with the assistance of many other men, in filling and poured in their quota of metal.

Back and forth walked the men with their burdens of scalding metal in their clay pots. Every moment I expected to see some of those pots split asunder and spill that deadly liquid on the carriers, but the pots did not split because they were made of a particular kind of earth which can withstand a greater heat than vessels made of armor-plate itself could withstand.

Steel Without a Flaw.

I watched the men filling a huge mold which, when it was completed, would be a 60-ton block of steel. Drop by drop the molten steed was being poured into it. And that is the secret Krupp discovered. By pouring in comparatively small quantities of molten metal at a time air bubbles were given a chance to escape, and a flawless block of steel was the result. A simple idea, but it was worth millions of pounds.

My head was beginning to ache, so I was rather glad when my friend suggested luncheon. We rode back to the Essenhof Hotel and partook of a meal, after which, as a change from the inside sightseeing, I was taken over the ranges where the big guns are tested. Like everything else at Essen the ranges are gigantic, one of them being 16 miles long. This is used solely for testing the biggest of guns. Unfortunately, there were no big guns being tested at the time, and I had to be satisfied with examining armor-plates that had been used for previous tests.

"Before we start I want to see some one in here," said my friend next day, and I followed him into one of the offices. While I was waiting, the official to whom my friend was talking looked up some letters in a case, and calling a messenger told him to take the letters along to some one in the next department. I commented on this a little later, and learned a lot about Krupp methods.

No man in Krupp's is allowed to know too much. Correspondence going from one room to another is looked up, so that the messengers cannot read it. A man may have been employed there all his life without knowing anything outside his particular department and without being allowed to go over other parts of the works. Even high-placed German army officers are not allowed to see all the works. In fact, every precaution is taken to prevent a man gaining more information than is necessary. Krupp agents are everywhere in the building, but I thought they were merely workmen who were not very busy.

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Children's Sleep.

Much information as to the health of a child may be gained by careful watching of its attitude, movements, and expression during sleep. The child who sleeps best with the mouth wide open, and the head thrown back, is most likely suffering from enlarged tonsils, which impede its breathing; if it can only sleep when the bedclothes have all been kicked off rickets should be watched for, while lung or heart affections are shown at an early stage by the tendency to sleep high up on the pillow, so that the head and shoulders are raised. In cases of pain in any part the hand will be found to be carried to the affected spot during sleep, so that teething, headache, or earache may be diagnosed, while a curious sign of irritation in the stomach or bowels is the constant rubbing of the nose. Restless sleep, broken and uneasy, is a common symptom of the onset of serious illness, but any extreme torpor and drowsiness should also be suspected, as these frequently precede feverish ailments, such as scarlatina and measles. Convulsive attacks are nearly always preceded by the tight clasping of the hands, with the thumbs folded into the palms, and the stiffening and curling up of the toes.

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New Bullet Cures.

Mr. Alex. F. Humphrey of Pittsburgh, Pa., has invented a bullet for war use that is the absolute opposite to some respects of the "poisoned bullets" mentioned in the early dispatches of the war, for it carries in its nickel jacket anaesthetics to deaden the pain of its wound, and antiseptics to help to heal it. Enough narcotics are contained in the bullet to greatly lessen the pain or shock in the nervous system of a wound even in the most vital organs.

Crime in New York Alarming.

There has never been a period in the history of New York when there were more crimes of violence and bloodshed than at the present time. Attempts to blow up cathedrals, churches and court houses occur with almost the frequency of spring showers. Mysterious murders are committed almost as often as traffic is interrupted in Fifth Avenue. The deadly bomb has become as common as the town pump at the crossroads hamlet. Thugs and shotgun bravos are as numerous and daring as in the days which preceded the killing of Rosenthal. Now, the place for a beginning of the cure of this evil is the Brodie. The miscreants who blew up the Court House should be run to earth and sent to prison if all the resources for the maintenance of law and order in the State of New York have to be employed. We fear the police authorities do not realize the gravity of their responsibilities.