

# AUTOMOBILE

## DANGER FOUND IN GASES AND DUST OF AUTOS.

The direct killing by automobile, extraordinarily prevalent as it is, represents only a small part of the damage done by motor cars. The statistics record only those deaths directly due to automobile accidents.

There are many other deaths caused in an indirect manner. Two problems of public health caused by the increasing use of automobiles are beginning to attract attention among public health associations. One relates to the damage caused to public health, particularly that of women and children, by the city dust; and the other to the destructiveness of the exhaust gases emitted from automobile cylinders.

### AUTOS INCREASE DUST.

Increased automobile traffic means increased dust, and this in turn results in much injury to public health. Dust is a germ carrier. Look in the sunlight at the light, dancing particles of fine dust which are called "sunbeam motes," and notice that every particle is heavily discharged with a multitude of disease germs seeking lodgment in a host, and an idea may be formed of another menace caused by the automobile.

The dust motes represent the finest particles of air-borne dust. But there are heavier and more destructive forms of dust carried in the air and by the wind along the city's streets. The coarser dust consists of particles of paper, rag, wood, asphalt, iron, brass, copper, sand, lime, plaster, ashes, stone, micro-organisms and germs.

### MENACE FROM DISEASE.

Consumption is one of the most common causes of death. Many people suffer from it. They expectorate freely and the germs of the disease settle on dust and are carried about in the air by the wind. Living, virulent tubercle bacilli have been time and again found in the dust lodged high up in the rooms of hotels, restaurants, hospital wards, in street cars, railroad cars, automobiles and similar places. Drying does not kill their potency.

Here is a new problem for health authorities to study: "What percentage of modern cases of tuberculosis is traceable directly and indirectly to the dust caused in city streets by increased automobile traffic?" It is known that dust as an irritant and as a germ

carrier is responsible for much injury to the public health, but the increased city dust caused to automobile traffic is promoting new health dangers worthy of serious study and statistical recording.

The dust formed by automobiles differs from other dust because of the large number of metallic particles it contains and the oil and other waste products it carries. The automobile wheels grind up iron and brass bolts and other metallic articles into fine powder which mixes with the street dust. These metals and the oil carry many by-products of the exhaust gases from the cylinders. Included in these products are carbonyls of the metals, sulphides, sulphates and many hydrocarbon poisons. These, besides irritating the mucous membranes, appear directly to poison the human system and bring on many psychic traumas or strains.

It has been demonstrated that fatigue may be caused by substances carrying hydrogen ions such as carbon dioxide or potassium dihydrogen phosphates, by phenol and similar chemicals, carbonic and sulphuric acids and salts. Automobile exhausts, and the oils, greases and other matter discharged by them into the streets may carry some or all of these fatigue-causing substances and many others. These constitute a new danger to city life and are a prolific source of sickness.

### EXHAUST GASES CARRY POISONS.

The exhaust gases from automobiles carry many poisons. Carbon monoxide and carbon dioxide are the commonest. There are, however, many poisonous hydrocarbon acids and salts carried out by them which have not been studied. These poisonous gases do not often get into the system in sufficient quantities to cause death or direct sickness, but the cumulative effects of inhaling even minute quantities result in a serious undermining of the public health. Many of the headaches and neuralgic pains people who use the city streets much suffer from are some of the effects of the inhaling of automobile exhaust gases.

The effects of exhaust gases inhaled in buildings such as garages may be serious. The oxygen of the air is absorbed and carbon monoxide takes its place. This may cause instant death, as statistics show.

## Kitchener's Romance.

It was customary to speak of Lord Kitchener as a confirmed bachelor, a connoisseur of romance, almost a woman hater. As a matter of fact he was anything but that. There was a hidden romance in his life to which of course he never referred, but which Sir James Denham in *Memoirs of the Marquess* relates:

It was Kitchener's lot to love a woman who was as emphatically devoted to duty as he was. The woman had been adopted by a wealthy relative, a woman who soon fell incurably ill. It was not possible—so the girl argued—to desert her in her enfeebled state, and as a result the man went on his lonely course and had the dreary desert for companion, where no skylark sings and where the vulture wings upon his hungry way. The blossom of life was not for him, but what was his soul's loss was the salvation of England in the East.

In later days his car might frequently be seen starting from the historic



**Why Was He Kept?**  
Little Bess—"Mama, wasn't little brother a Christmas present? Didn't he come on Christmas Day?"  
Mother—"Yes, dear."  
Little Bess—"Then why didn't your exchange him for something better, like you did with some of your other Christmas gifts?"

palace where he lodged westward to the house of the elderly woman whom he still loved. He leaned upon her counsel, for she was a woman of rare mental balance. He never sought her sympathy in vain. That intimacy of mind meant much to him.

In addition to her rare common sense she was possessed of humor even more uncommon. Excellent is her definition of the man who sought her advice so frequently: "Never was a man truer to his name. Outwardly cold and hard as steel, he inclines beyond human sight the embers, the warmth, the fire he will not show."

And again, when he was elevated to an earldom as Earl Kitchener of Khartoum and Viscount Broome: "Very suitable," she said and laughed; "every kitchener should have its broom."

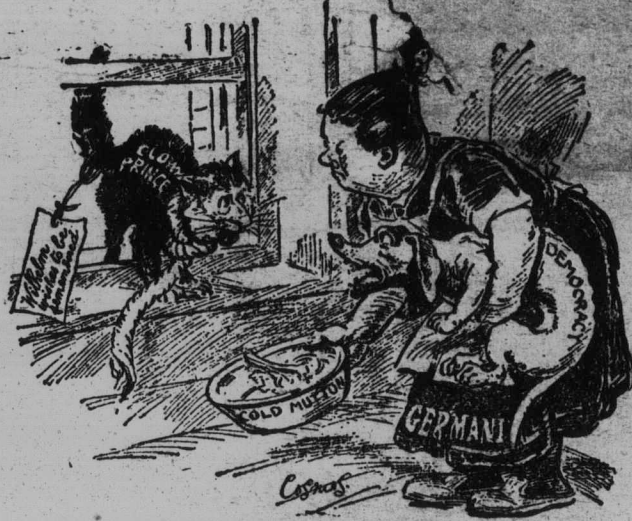
### Planting Trees by Machinery.

Machines have been devised to do many things, but one of the most remarkable is used by the United States Forest Service, which sets out seedling trees ten times as fast as the old handplanting method.

Its capacity is from 12,000 to 15,000 trees a day. It is an adaptation of a machine made to set out tomato and cabbage plants, and it takes three men and two horses to operate it at capacity.

In appearance the tree planter is something like a mowing machine. It has a ploughshare arrangement in front, and at the back of the feeder are two metal wheels, which push earth around the tree seedlings and pack it down. Two men seated beside the driver are kept busy placing the seedlings in the planting hopper.

Extra features of the tree planter include a marker that indicates where the next row is to go, and two hoppers containing water and fertilizer that drop the nutriment for the young trees around their roots just before the metal wheels fill in the furrow.



**THE CAT CAME BACK—AND GOT THE COLD SHOULDER**  
The return of the "Clown Prince" to Germany has failed to make any impression on the political life of Germany.

—From the News of the World.

## The Fascination of Russia.

"What is the inscrutable power that lies hidden in you? Why does your aching, melancholy song echo forever in my ears? Russia, what do you want of me? What is there between you and me?" The passage is from one of Gogol's books, written while he was in exile, pondering the secret of the fascination that his native land held for him.

Not only Russians in exile but also foreigners who have lived in Russia have felt the strange spell of the country. What is the reason for it? I have often, says Maj. Maurice Baring in the *Puppet Show of Memory*, found myself asking that question.

The country has little obvious glamour and attraction, and the picturesque and peculiar to countries rich in historical traditions is absent in Russia; but beauty is not absent, though it is often obscure, and for that reason it is the more striking. The realization came home to me strongly in the summer of 1913. I was staying in a small wooden house in central Russia, not far from a railway, but isolated from other houses and a fair distance from any village. The harvest was nearly done. The heat was sweltering; the country was parched and dry; and the walls and ceilings were black with flies.

Just at the cool of the evening there



**Off and On.**  
Mr. Stutz—"So that's the little run-about you were telling me of."  
Henry Carr—"Sometimes it is. Generally it's my little stallabout."

came out of the distance a rhythmic song that ended on a note that seemed to last forever; it was piercingly clear and clean. The music came a little nearer, and you could distinguish first a soloist chanting a phrase and then a chorus taking it up. Finally solo and chorus became one and reached a climax on a high note that grew purer and stronger and more and more long drawn out without any seeming effort until it died away. The tone of the voices was so high, so pure and at the same time so peculiar, strong and rare that at first it was hard to tell whether the voices were tenors, sopranos or boyish trebles. Both in range and in quality they were unlike the voices of the woman whom you usually hear in Russian villages.

The music drew nearer and filled the air with majestic calm. Presently in the distance beyond a dip between the trees and in the middle of the natural stage that the garden made I saw against the sky figures of women walking slowly in the sunset, carrying their scythes and their wooden rakes and singing as they walked. Once again the phrase began, and the chorus repeated it; and once again chorus and solo melted together in a high and long-drawn-out note that seemed to swell like the sound of a clarion and then to grow purer, more single, stronger and fuller till it ended suddenly and sharply as a freeze ends. The song seemed to proclaim rest after toil and satisfaction for labor accomplished. It was like a hymn of praise, a broad benediction, a grace sung for the end of the day; the end of the summer, the end of the harvest. It expressed the spirit of the breathless August evening.

The women walked past slowly and disappeared into the trees, but a glimpse lasted only a moment, but it was long enough to start a train of

## WHERE HONESTY IS A

### The World's Most Remarkable Rogues—By St. Nihal Singh

The oddest job, possibly, assigned to any official in India or elsewhere is held by a British official, Mr. H. W. Starte, who has been appointed the official father-confessor to a number of tribes which were to crime as a duckling to water.

Among these "criminal" tribes in India, crime descends from father to son and is literally a hereditary profession. Crime among them is regulated according to caste. One group specializes in cattlelifting, another in counterfeiting, and so on.

That sort of thing has happened for so many centuries that the moral instinct has been practically killed in these people. For a member of a caste which specializes in thieving to decline to engage in it would be regarded as an act of backsliding on his part for which he would be outcast. In short, it would constitute a social crime for one of them to lead an honest life!

Children as Scouts.  
The training of children of the criminal tribes begins almost as soon as they start to take note of their surroundings; I was told by a high police officer who had been intimately associated with these tribes that the parents show a coin, secretly, to the child and then ask the child where it is. As their intention is to make the child say it has no knowledge of the whereabouts of the money, it is coaxed and beaten by turns until it is able to lie without betraying it in any way. After that lesson has been mastered, the child is taken to villages and made to act as a scout for older criminals, and still later is taught the rudiments of committing crime in which he is to specialize.

Girls are trained to act as guides and helpers only, the actual commission of crime being left to the men, aided by boys. On the pretext of selling vegetables, fruit, and gewgaws, they manage to secure access to houses. So retentive does their mem-

ory become that they are able to go back and give an exact plan of the house, showing how best to secure the valuables and get away.

On being asked to take on the job of looking after these criminal tribes which wander from place to place, making it difficult for the police to track them and bring home to them the crimes they had committed, Starte spent some time in studying their language, ways, and psychology. With great difficulty he succeeded in gaining the confidence of some of them, and by degrees showed how much happier they would be if they would settle down and pursue an honest calling instead of living in fear of the police.

To tame these tribes and to teach them civilized habits and trades, a number of settlements have been established in various towns of the Bombay Presidency. Mr. Starte, who initiated the experiment, is in charge of them all.

On visiting the settlements, I found that these principal criminals, thieves, robbers, and cattle-thieves, had each their own little colony. They quickly learn to be skilled workers, particularly the counterfeitters, and, after a short period of training, become good blacksmiths, carpenters, masons and domestic servants.

**A Colony of Counterfeitters.**  
While visiting the counterfeitters' colony my attention was attracted to a little booth containing an image clad in gaudy clothes and garlanded with roses, jasmies, and marigolds. The officer conducting me told me that this was the particular god of the counterfeitters, and they always worshipped it, and promised it a share of the proceeds of their crime before actually committing it. The god remains, and the instinct to worship it, but the propensity to commit crime is being educated out of the people.

thought and to call up pictures of rites, ritual and custom, of rustic worship and rural festival, of pagan ceremonies older than the gods.

### Two of a Kind.

New girl (timidly)—"I s'pose you are a fine cook, mum?"  
Young mistress—"Bless me, no! I don't know a thing about it."  
New girl (relieved)—"Then we'll get on famously, mum, I don't either."

Vegetable oysters, also known as salsify, may be left in the ground until spring, for freezing does not harm the roots. However, if it is desired to use these roots during the winter, part of the crop should be dug up before the ground freezes, and stored in a cool, moist place.



**Figures It Out.**  
Mother—"The old-fashioned girl told her mother everything."  
Daughter—"But the modern mother tells her daughter nothing."

## Training Canada's Indian Youth.

—Residential Schools An Important Factor in Fitting Our Wards for Citizenship.

By Russell T. Ferrier, Superintendent of Indian Education.

Nearly fourteen thousand Indian children in Canada are enrolled in the Department of Indian Affairs and the number, more than five thousand are in residential schools, which are the most important factor in the development of our Indian youth. In these institutions provision is made to supplement academic instruction with vocational training.

The industrial and boarding schools—seventy-four in number—are financed and managed jointly by the Department of Indian Affairs and the various Churches engaged in the work. The institution workers are nominated by the Church authorities and the activity is supervised by them and by the department. There is a classroom inspection by properly qualified school inspectors. The vocational training and the institution, generally, are inspected by department officers. The major portion of the capital expense is met by Parliamentary appropriation, and for current expenses there is a per capita grant from the same source. When the per capita grant is not sufficient for the conduct of a school, the missionary society or order in charge provides supplementary funds.

An institution of 125 pupils has on the staff, in addition to the Principal and his Assistant, two Classroom Teachers, a Farm Instructor, a Gen-

eral Mechanic, a Matron or Sister Superior or Sisters, who supervise the kitchen, sewingroom, laundry and other household classes and duties. One member of the staff is qualified to do practical nursing. Indian children are admitted at the age of seven or eight and continue in residence from eight to ten years. An annual vacation of one month is allowed and is enjoyed by all pupils whose homes are within reasonable distances.

Pupils in primary grades devote both morning and afternoon to classroom exercises, but the school day is divided, for older pupils, between academic instruction and vocational training. The boys receive, in addition to a public school education, instruction in farming, gardening and the care of stock. In some schools carpentry, shoemaking and blacksmithing are taught to a few boys. The girls have domestic duties and instruction as well as classroom exercises—the aim being to graduate young women who will be good housekeepers. A portion of each day and all of Saturday afternoon is devoted to organized play and other supervised recreation. In addition to regular Sunday worship and instruction, religious services are conducted both morning and evening, each day of the week.

An increasingly important activity is the high school instruction of older pupils resident at Indian schools which are situated close to cities or large towns. When an Indian boy or girl shows academic promise, the department allows an increased per capita grant, if the school can arrange for the regular attendance of the pupil at a neighboring high school. Indian children, from whom these arrangements are made, receive, thus, secondary schooling in competition with white boys and girls and at the same time, live in Christian institutions where their evening activities are thoughtfully supervised.

The Churches engaged in residential school work have, in the past, erected some modern buildings that are adequate and suitable for the purposes of Indian education. The Government is, at the present time, rapidly replacing unsuitable institutions with well equipped school buildings, residences and barns. A department architect gives the major portion of his time and energy to the erection of institutions that meet the requirements for our Indian wards. At the present writing, forty-seven of the seventy-four Indian residential schools are lighted electrically, heated by one unit, and are equipped with modern plumbing.

## IN RABBITBORO



WELL, PARSON, I AM GLAD YOU HAVE COME TO SPEND THE NIGHT HERE WHILE MRS POPEYE IS AWAY AT CABBAGETOWN. I'M GOIN' TO GIVE YOU THE SPARE ROOM.



THIS ROOM IS FULL OF SAD MEMORIES: MY DEAR FATHER DIED IN THAT BED, MY BROTHER DROPPED DEAD IN FRONT OF THIS VERY CHAIR!



MY FIRST HUSBAND BREATHED HIS LAST ON THIS COUCH! AH, YES! THIS ROOM IS SURELY FULL OF SAD REMINDERS!



WELL, I THINK I HAVE MADE YOU COMFORTABLE. GOOD NIGHT, PARSON! PLEASANT DREAMS!!