

## HOW THEY ARE FASHIONED.

The Making of "Car Wheels" as Witnessed by a "St. John Boy" in Allegheny.

To those who ride but seldom on railway trains at high speed the uppermost thought usually is "if anything should break." The remarkable record made in efficiency of car wheels and axles is the reassuring reflection of the habitual traveler if he ever thinks about the matter at all.

The flange of a car wheel 1 1/4 inches thick by 1 1/8 inch deep is seemingly such an insignificant thing that the timid novice may well be pardoned for hesitating to stake his life upon anybody's assurance of its perfect soundness and safety, as a small piece broken out of this flange would very likely ditch the fastest express train even more quickly than the slowest freight.

But it is in the care of wheel treads and flanges, that the most conscientious work is done, and very severe and painstaking inspection by the inspector is required for the safety of life and property. The wheels are attached to the axles under a pressure ranging from 40 to 60 tons and averaging 50 tons, and the flanges and treads when not of steel are "chilled" and thereby made even harder than steel.

On Monday last the writer witnessed the operation of casting car wheels at the works of the Pennsylvania Car Wheel Co., in Allegheny. The actual time consumed in casting a wheel, and at the same time "chilling" the tread and flange, does not exceed 15 seconds.

The molten metal is poured into a "flask" and striking the cold iron at the flask suddenly combines the carbon in the rim of the wheel turning the wearing portion white and making it harder than steel.

As soon as the casting becomes hard enough to move it is lifted by means of electric cranes and placed in brick lined air tight annealing pits where they are allowed to cool for five days.

It is rather surprising to be told that 90 per cent of wheels in service in Canada and United States are made of cast iron. Wrought iron is used in steel tired wheels whose employment is limited to locomotive and passenger car service.

Cast steel wheels have thus far not proved to be a success. The only successful steel wheels (so called) are those with steel tires having cast or wrought iron in the centre after the wheels are taken out of the annealing pit they are tested for any flaws or imperfections.

The wheel is placed flange downward on an iron plate supported by masonry and is then struck centrally on the hub by a drop hammer weighing 140 pounds falling from a height of 12 feet.

The ordinary 33 inch cast iron wheel weighs from 550 to 600 pounds.

The passenger coaches the standard is getting to be, the 36 inch wheel weighing 750 pounds.

W. H. WILLIS.

## A Friend at Court.

A favorite model of a well known R. A. added to this profession the more prosaic one of pig-dealer. As his object was that of fattening his pigs for market, a great deal of food was necessary for them, and when he was sitting to the great painter and bemoaning the great difficulty of getting sufficient "wash" for his pigs, a bright idea seemed to strike him, and he said to his employer—

"They tell me, sir, as you know the Queen."

"Know the Queen? Of course I do. Everybody knows the Queen," said the R. A.

"Ah, but," said the model, "to speak to you know, sir, comfortable."

"Well, I have had the honor of speaking to her Majesty. Why do you ask?"

"Well, sir, you see there must be such lots of pig-wash from Buckingham Palace, and those sort of places, most likely thrown away, and my missus and me thinks that if you was just to tip a word or two to the Queen—which is a real kind lady, one and

## ASTHMA PERMANENTLY CURED.

A Well Known Canadian Notary Public Suffered for 35 Years—Permanently Cured by Clarke's Kola Compound.

R. D. Pitt, Esq., Kamloops, writes: "I had suffered for at least 35 years from the great oppressiveness of asthma and shortness of breath. I had during these years consulted many physicians and tried all the remedies, until the doctor told me I might get temporary relief, but I would always be troubled. I tried Dr. Clarke's Kola Compound, and after taking the first bottle I became greatly relieved, and three bottles have completely cured me. I can now breathe as natural as ever, and asthma does not trouble me in the least. I feel it my duty to bear testimony to the marvellous effect this remedy has had in my case, and would urge all suffering from this disease to try Clarke's Kola Compound, as only those who have suffered all these years as I have can appreciate what a blessing this remedy must prove to sufferers from asthma." Three bottles of Clarke's Kola Compound are guaranteed to cure. A free sample will be sent to any person troubled with asthma. Address The Griffiths & Macpherson Co., 121 Church street, Toronto, and Vancouver, B. C., sole Canadian agents. Sold by all druggists. When writing for sample mention this paper.

Clarke's Kola Compound is the only permanent cure for asthma; it is now successfully used throughout the leading hospitals in England and Canada.

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Hood's Sarsaparilla is prepared by experienced pharmacists of today, who have brought to the production of this great medicine the best results of medical research. Hood's Sarsaparilla is a modern medicine, containing just those vegetable ingredients which were seemingly intended by Nature herself for the alleviation of human ills. It purifies and enriches the blood, tones the stomach and digestive organs and creates an appetite; it absolutely cures all scrofula eruptions, boils, pimples, sores, salt rheum, and every form of skin disease; cures liver complaint, kidney troubles, strengthens and builds up the nervous system. It entirely overcomes that tired feeling, giving strength and energy in place of weakness and languor. It wards off malaria, typhoid fever, and by purifying the blood it keeps the whole system healthy.

## Hood's Sarsaparilla

Is the best—In fact the One True Blood Purifier. Sold by all druggists. \$1; six for \$5.

Hood's Pills cure all Liver Ills and Sick Headache. 25c.

all says—she would give her orders, and I could fetch the wash away every week with my barrow.

It is nowhere recorded, however, that the painter performed that trifling service for the enterprising pig-dealer.

## GUTTA PERCHA FAMINE IN SIGHT.

The Cable to the Philippines may Exhaust the World's Available Supply.

The complexity of our civilization is exhibited in nothing more clearly than the disturbance that may be caused by the interruption of the traffic in some material from distant and perhaps barbarous lands. As shown by tea and coffee, things that are curiosities or great luxuries to one generation become necessities to the next, and when this latter stage is reached the failure of the supply becomes a public calamity.

Such a calamity is impending in the falling off in the production of gutta percha. This material enters very largely into electrical construction, as its insulating properties make it invaluable in the manufacture of cables and its wide limit of elasticity diminishes the danger of breaking. Nothing that has yet been discovered is capable of replacing it. It is also used for many purposes of India rubber, and is an article of prime importance.

Gutta percha is a gum derived from several species of sapotace, found in the Far East. The trees are of slow growth, but may attain great size. A good tree will measure thirty or forty feet in height and have a trunk from one and a half to three in circumference. Such a tree will yield two or three pounds of gum, but trees are known that have a girth of twenty feet at a distance of fourteen feet above the base and rise from 100 to 140 feet to the first branches. The wood is soft and spongy in texture, and is marked by longitudinal black lines that show the channels occupied by the gum. The precise tree that supplies the gum has not been determined, and the natives names indicate anything there must be about thirty varieties, but it is likely that many of these names are synonymous. Its geographical range is limited to about 6 latitude north and south and between 100th and 120th meridians of east longitude. Outside of this area it has not been made to thrive.

The native mode of extraction is very wasteful. The selected tree is felled and the branches lopped off as quickly as possible to prevent the sap running into the twigs and leaves. The juice slowly runs out, changing color as it does so, and then the wood is pounded with heavy mallets to press out all the gum. From this it may be seen that a tree is destroyed by each operation, and, as about thirty years is needed to replace it, the forests are rapidly depleted.

The juice is collected in suitable vessels, where it grows very dark and finally coagulates. If water gets mixed with it, the gum is lighter in color and becomes stringy, but after boiling seems to be as good as ever. In this first coagulated state it is known as raw gum and is sometimes kept for months before the next step, the boiling. The lumps of gum are put into kettles with either plain water or, in some cases, lime juice or coconut oil, and boiled vigorously. It is said that the lime juice makes a firmer and more homogeneous product. After coming to the factory the curd gutta percha is passed into a masticator that tears it into shreds. These are heated to the melting point and poured into sheets or cast into the desired form.

Submarine telegraphic cables use a large portion of the gutta percha of the world. The cables consist of a core of copper wire covered by layers of gum. The wire is first coated with "Chatterton's compound," a mixture of gutta percha, resin and Stockholm tar, and is then run through

a cylinder of warm gutta percha. As the wire is drawn through, a piston presses the gum from behind, and it adheres as a thin coating to the wire. A coat of Chatterton's compound is laid over this first layer, and the process is repeated until the insulation reaches the desired thickness.

Gutta Percha is the product of a wild tree of the jungle and is liable to many dangers. When an enterprising Malay or Chinaman wishes to clear a bit of ground he sets the jungle on fire and destroys many gutta percha trees. Storms and natural enemies aid in diminishing their numbers, and no steps have been taken toward restoring them. Culture might be tried in Borneo, Samatra, Java, the Celebes and the Malay peninsula as these lie within the geographical limits, and it should be begun at once. The supply fails to meet the present demand, and it is thought that if the proposed Pacific cable be constructed it will be the last—at least for many years.

Fully thirty years will be required for an orchard of gutta percha trees to become productive. Great Britain and Holland should give attention to this serious menace and United States government might make experiments with these trees in some of the Philippine Islands.

## Why she Went Into Mourning.

He had asked her to be "his," and she had made up her mind that she had "worked out" long enough, anyway. So she accepted him. She was perfectly satisfied with her place, but she wanted to have a house of her own. So they were married.

It wasn't long afterwards that she came back to see her former mistress about something, and the latter noticed that she was wearing mourning. Of course she was sorry for her, and was rather surprised that she made no mention of her bereavement. It is indeed a grievous thing when a honeymoon is cut short.

Finally the former mistress brought up the subject herself.

"You are in mourning, Maggie?" she suggested.

"Yes," replied Maggie, complacently, and with no show of feeling at all, "I thought it was the least I could do for 'im."

"It is showing no more than proper respect, of course. I am very sorry. It must have been a great shock."

"Great shock!" exclaimed Maggie, in surprise. Then, as she grasped the idea, she went on, "Oh, he ain't dead," with the accent on "he."

"You haven't lost your husband?"

Maggie shook her head.

"Then why are you in such deep mourning?"

"Just to please the poor lad," answered Maggie. "You see, it's this way," she went on, when she had decided to tell the story. "After we was married, he comes to me an' he says, 'Maggie,' he says, 'the poor woman never had nobody to put on mourning for her, an' I dunno' that she's been treated right,' he says. 'What?' says I. 'Me first wife,' says he. 'She was all alone in the world, exceptin' fer me,' he says. An' so I says to him, 'I'll do it fer the poor woman,' I says. An' here I am. And the best of it is that the story is absolutely true."

## Well Caught.

Many stories are told as to how pickpockets come to grief at times, with all their cleverness, but the following story, the writer believes, is new.

A gentleman going through a leading street in Liverpool stopped to look at some pictures displayed in one of the shop windows. He had not stood there many seconds before he became aware of the close proximity of one of the nimble-fingered geatry. The gentleman watched him for a little while, then took out his purse and looked into it, as though counting if he had sufficient to make a purchase, then put the purse in the outside pocket of his overcoat, making much ado as though pushing it into a corner; on which he turned to look through the window again, seemingly loth to give up the bargain. The light-fingered one slipped up behind him, and, before you could say "Jack Robinson," had his hand in the capacious pocket. The gentleman buttoned up his coat and proceeded on his way, but had not gone very far before a man called to him.

"Hi! there's a man with his hand in your pocket."

"Never mind him," said the gentleman. This occurred several times, and in each case he gave the same reply.

Presently they came to a police-station. The gentleman entered, made his statement, and then asked one of the officers to help to take his overcoat off, as the man could not otherwise get his hand loose. For, besides a quantity of fish-hooks, there was a medium-sized rat trap in his pocket, into which he had inserted a hook when the man thought he was hiding his purse, and into which the would-be pickpocket had thrust his hand, drawing down the spring, and thus making himself a prisoner.

## Drink Only Good Tea.

There's a reason for it. Cheap teas are not only flavorless, and require more tea to the cup to produce any taste, but moreover, are often artificially colored and flavored, and are sometimes most dangerous. A branded tea like Jellie's Elephant Brand is safe, as its pickers' business reputation is staked on its purity.

## The Slowest Americans.

Two gentlemen from different sections of the country were recently discussing the capabilities of "nervous restless Americans"

Don't take  
Substitutes

Don't be misled—  
"SURPRISE" Soap  
has no equal.

It's a pure, hard,  
harmless soap, which  
makes a quick, heavy  
lather, but lasts a long  
time.

It cleans clothes clean-  
er, sooner and with less  
work or injury than  
any other soap.

Only 5 cents  
a large cake.  
Remember the name

"Surprise."

for being very slow and deliberate. One of these gentlemen, a Marylander, claimed the palm for slowness for the inhabitants of the Eastern Shore in his state.

"It is a saying with us," he said, "that if oysters had been created with legs, the people of the Eastern Shore would all have starved to death."

"That is nothing to the people up around Mount Monadnock," said the other, who was a New Englander. "They used to say of one man up there, that 'if you was to give Hiram Abbott forty rods' start, stockstill would catch him!'"

## As Good as Golf.

He was an old farmer, on a visit to the city, and he saw two young fellows playing chess. The game was long, and he ventured to interrupt it at length.

"Excuse me," he said, "but the object of both of you is to get them wooden objects from where they are over to where they ain't?"

"That partly expresses it," replied one of the players.

"And you have to be continually on the lookout for surprises and difficulties?"

"Constantly."

"And if you ain't mighty keenerful, you're going to lose some on 'em?"

"Yes."

"Ah! then there's that other game that you dress up odd for and play with long sticks an' a little ball?"

"You mean golf?"

"I think prob'ly that's what I mean. Is that game amusin'?"

"It's quite interesting, and the exercise is very beneficial."

"Well, I reckon it's a mighty good joke."

"To what do you refer?"

"The way I've been havin' fun without knowing anything about it. If you gentlemen want to really enjoy yourselves, you come over an' git me to let you drive pigs. You'll git all the walkin' you want, an' the way you have to watch for surprises, an' finger so's not to lose 'em, would tickle you most to death."

## Electricity and a Bulky Horse.

A Pennsylvania gentleman owned a horse that would have been very valuable but for what seemed an ineradicable vice of balking. A friend suggested that electricity might cure him. The gentleman purchased a small storage battery, connected it by wires to the bit and cupper, and placed it in the cart to which the horse was attached. As was anticipated, the horse refuse to move, and stood with all four feet braced. Then the owner touched the button connected with the battery. When the horse felt the shock he snorted, jumped, and began to move off at a lively pace. Every day for a week he was treated to the same lesson. As a result, his owner declares that the horse is completely cured of his evil ways. In West Pennsylvania Humane Society, which investigated to the gentleman's method, came to the conclusion that a small amount of electricity used in this way was more humane than a whip.

## His Ice-box Fort.

To shut a merchant in his ice-box, and then to rob his shop, has been a favourite diversion for Chicago criminals. Saloon-keeper Weissenrieder had observed this fact and the Chicago Journal shows how he took advantage of his knowledge. On a Monday afternoon, not long ago, two men entered his place, and at the mouth of revolvers forced him to get into the ice-box. There was no place in the saloon that he would have rather got into under the

circumstances, for that was were all his weapons were. After he had been shut into the box the men went behind the bar. Then it was that Weissenrieder opened fire. One of the robbers was wounded and was assisted from the place by his companion. Both escaped. They secured no booty. Weissenrieder had prepared his box for such an occurrence, having cut two port-holes in the lid of it, and it was through these that he won his battle.

## Good Old Porter.

One of the most popular railway managers of his day was the late Sir James Allport, of the Midland Railway Company. He once paid an official visit to a little country station in the Midlands, where he flattered himself he was unknown.

On the train entering the station, his carriage door was opened, and a shrewd-looking porter inquired if there was any luggage to be looked after. There was, and for the attention he received Sir James offered the man two shillings, which was immediately pocketed.

Then the manager, having in mind the rule against "tips," inquired, "Are you aware who I am, my man?"

"Yes, sir," was the reply. "Mr. Allport—fellow servant of the company, sir. Never take tips from the general public, sir!"

The ready answer brought a smile to the manager's face, and the matter went no farther.

## Scottish Dialect.

The Scottish American has a story of a north country servant girl, who was living with an English family in the neighborhood of Oxford. One wet day she happened to step into a heap of mire, and returned home with her clothes much soiled. "What have you been doing?" asked her mistress.

"Oh," said she, "I stepped into a hump-lock o' glaur."

"And what's glaur?"

"Just clairs," said the girl.

"But what's clairs?"

"It's just clabber."

"But, dear me! What is clabber?"

"Clabber is drookit stour."

"But what is drookit stour?" insisted the amazed lady.

"Weel, weel," said the girl, "ave nae patience wi' ye ava. Ye sud ken as weel as me, it's just wat dirt."

## Must Edit a Morning Paper.

Jinks: "Ah, Blinks, glad to see you. How are Mrs. Blinks and the baby?"

Blinks: "Well—very well; only I'm a little disappointed in the baby."

"Disappointed! Why, its a boy isn't it?"

"Yes; but you know the desire of my heart has been to have a son succeed me as editor of the 'Evening Clarion.'"

"Yes; and no doubt the youngster will inherit his fathers talents."

"But he won't."

"Wont?"

"No; I shall never be able to make anything but a morning editor of him. He sleeps all day, and keeps awake all night."

## Expedited.

Lady—I wish to get a birthday present for my husband.

Stopwalker—How long have you been married, madam?

Lady—Ten years.

Stopwalker—Bargain counter to the right madam.

## DIED

CARTER.—In this city on the 11th inst., Mary Millicent, youngest daughter of Edward S. and Alice E. Carter, aged 2 years and two months.