

SKETCHES OF NEW TRANSPORTATION VEHICLE AND PORTRAIT OF ITS INVENTOR. The cars balance like bicycles. This is rendered possible by the use of the gyroscope. The cars remain erect on the rail, owing to the presence in the

car of two rapidly-revolving flywheels, which, like the spinning top, resist being moved out of their plane of motion. Louis Brennan, who is known as the inventor of a torpedo which the British government bought for \$350,000, has set up an experimental railway in miniature, with cars large enough for children to ride in. Brennan predicts that the future railway carriage will be much larger—two or three stories high, and wide in proportion; that speeds will be from two to three times greater, and that accidents will be almost impossible.

The thought occurs that if the gyroscope should stop gyrating that a terrible disaster would occur to a coach laden with passengers. However, the inventor says that the gyroscope will be rotating in a vacuum and therefore will not run down for several hours after the power is lost, so there would be plenty of time to seek safety or make repairs.

# EDITORIALS

Opinions of Great Papers on Important Subjects.

## THE ART OF CONVERSATION.

**D**O people so greatly change? Is sprightly conversation a lost art? Was there a time when everyone in society was gifted verbally? One of the chapters of the revised edition of "Manners and Social Usages" is devoted to "Society's Small-talk," and contains the observation that while there are persons who gain a reputation of being most agreeable people, because they talk sympathetically to anyone with whom they are brought into juxtaposition at a dinner or other social function, "there are others, deficient in this gift who can only say 'Really,' 'Indeed' and 'Oh' people," the writer affirms, "are the despair of the dinner-giver." But these people do not constitute a new species. Lord Edward Bulwer-Lytton, in one of his essays, more than half a century ago, complained that "Humming, hawing and drawing are the three graces of our conversation." To prepare for talking, one must begin thinking. A man or a woman who is interested in people, in events or in books, should have no difficulty in finding subjects of conversation or in making observations likely to be well received. The best talkers naturally, are people of culture, but culture may be acquired out of college as well as in. The days of the French salons are gone never to return. The habits of the salons were men and women picked for their brilliancy of mind and speech, or for some other trait that made them interesting in society. But not all of them were equally gifted, some of them were better listeners than talkers. There is a refuge for the individual addicted to society, but without hope of succeeding as a talker—let him listen sympathetically to others who talk, and he will not lack appreciation.—Milwaukee Wisconsin.

## PLAIN SENSE FOR AUTOMOBILISTS.

**T**HE automobile is not going to be regulated by persecution. It has come to stay. It may be largely used for pleasure just now, but its practical value is manifest and insures its permanence. When a business man can cover twenty to thirty miles in an hour or two and do in that time work that it would take him a day to do with a horse and buggy, it is just as idle to attempt to suppress that advantage by legislation as to attempt to suppress the introduction of railways or any other labor-saving device. The more reasonable the law—and by that we do not mean the more lenient, but the greater the liberty allowed consistent with the rights of the rest of the community—the more satisfactory will be the results to the non-automobile portion of the community. An excessively high speed ought not to be tolerated where it endangers any one but the occupants of the automobile; but what constitutes a high speed ought not to be measured by the performance of some broken-down cart horse. On the other hand any automobilist who habitually and unnecessarily puts in jeopardy the lives of others, who runs at high speed over narrow roads where the skying of a startled horse may cause an upset, who dashes through crowded thoroughfares or past cross streets where the approach of another vehicle is obscured, ought not only to be dealt with by the courts much more severely than is customary, but to be made to feel that he is an outlaw among representative automobilists. An enlightened selfishness dictates such a course no matter how disagreeable it may be; for the conduct of those automobilists who do offend is so outrageous and so incurable that unless it is clearly dem-

## THE COST OF WAR.

**E**VERY century lives are wasted in war at the rate of 200,000,000 in Europe alone—an average of 200,000 every day. Two and a half million men fell on European battlefields during the first half of last century alone; and this slaughter cost Europe the colossal sum of \$8,500,000,000. Each victim cost \$2,000 to kill. In the Boer war each Boer killed cost England \$25,000. The daily expense of the Russo-Japanese war amounted to more than \$1,000,000 every day on the Japanese side; while the Russians had to foot a bill for \$2,500,000 every day—and this for a period of eighteen months! Now try to figure out what this war cost Russia and Japan. To the actual cost of carrying on war must be added the expense of preparation. The greater European nations every year spend many hundreds of millions of dollars each, preparing for war. It costs \$5,000,000 to build a modern battleship. A hundred-ton cannon costs \$75,000—a single discharge of these monsters burns up \$1,500, and they can be discharged only a few hundred times, then they are worn out. Is this not an insane waste of both human lives and money? Why do nations go to war, anyway? Because of jealousy, mostly. The great commercial nations, especially, are mutually distrustful, always afraid that the other will gain greater wealth and territory. Japan is looking with jealousy upon America, since we have territory (the Philippines) near its doors. England is jealous of Russia. Germany and France are always ready to fight should one or the other extend its influence in Africa.—Illustrated Home Journal.

## THOUSANDS FIGHT AND TRIUMPH.

**H**ARDLY a day passes that the newspapers of this city do not report one or more suicides or attempts at suicide. In the vast majority of cases "despondency" is given as the cause. That one word eloquently sums up the story. But all the despondency that triumphs in this way over the weakness of the few is infinitesimal compared with that which is dominated and beat down by brave hearts every day of the year. Those who want to take their own lives have no monopoly of this feeling. Thousands and thousands of men feel it come over them at times. The causes of it are infinite. But they do not yield to it because they cannot afford to. The husband with a wife and children to provide for bravely puts it aside for their sake and his own. The woman whose life is often a mere mechanical routine fights it down that those whom she loves may not be infected with her cheerlessness. These are the silent wars of which we do not read in the newspapers, but in which men and women reach the supreme heights of heroism. The other kind of war has more of noise and pageant and music. But in real grandeur it cannot compare with the victory of a single human soul over the weakness that leads to despondency or the despondency that ends in death.—Chicago Examiner.

## POWER OF PULLEYS.

**Five Blocks Will Enable a Man to Lift Sixteen Hundred Pounds.**  
If you were commanded to lift 1,000 pounds when your normal lifting strength was equal to only 100 pounds, how would you go about it? How would you increase your strength sixteen times?

It can be done easily. Have you ever studied the effectiveness of pulleys; do you know that the average man may equal a Sampson simply by employing a rope and a few pulleys blocks?

As early as the sixteenth century methods of augmenting power through pulleys was demonstrated. Since then this wonderful mechanical aid has proved of vast benefit to man.

The man, then, who would rival the feats of Sampson must call the humble but powerful pulley to his aid.

Of course, he can do a great deal with the lever, although he may not, as Archimedes believed could be done, loosen old Earth from her moorings. Still, for an example of gradually but powerfully augmented strength he would turn to the pulley.

Suppose that by the use of two pulleys you were able to lift 100 pounds from the floor, and you wished to lift twice the weight. Were you to take a double block and use it above one single block, you could lift 200 pounds.

By the use of two single pulleys the load is supported by only one rope; by the use of a double pulley, thus doubling the rope back on itself, its lifting power, as well as your own, is increased.

If you used two double pulleys, you could increase the lifting capacity to 800 pounds by doubling the lines around the pulleys. In proportion to the number of ropes supporting the load you can increase the weight.

To lift 400 pounds you would merely have to double your blocks. In draw-

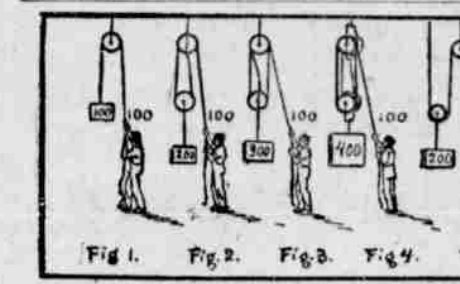


DIAGRAM ILLUSTRATING THE POWER OF PULLEYS.

ing the rope a man pulls it in an opposite direction from the movement of the weight. Were you to get above the pulleys and pull upward, the weight of the rope—however slight—would figure in the calculations.

No doubt you have often seen men lifting great loads and immense boxes by means of pulleys and wondered how it could be done.

In building, the pulley is one of the most valuable pieces of mechanism. While looking at skyscrapers have you not wondered how the great iron beams were lifted to the dizzy heights?

Here, again, the pulley has done almost incredible work.

Still another way of using pulleys is to increase the number instead of doubling the winding capacity of single blocks.

By using two pulleys you will lift, possibly, 200 pounds. If you add another single pulley, you will be able to lift 400 pounds, twice the weight, without extra exertion.

By the use of four single pulleys you could lift 800 pounds, and with five pulleys 1,600 pounds.

Of course, the facility of lifting a heavy weight and the ease of increasing it depends upon the bearings of the pulleys. It is important that these be delicately adjusted and well oiled.

From a purely mathematical standpoint the fine elements which enter into the facility of increasing weight without the necessity of additional lifting force are numerous.

A great deal depends upon the elasticity of the rope. With a stiff rope you would find much more difficulty in lifting a weight than with a flexible one.

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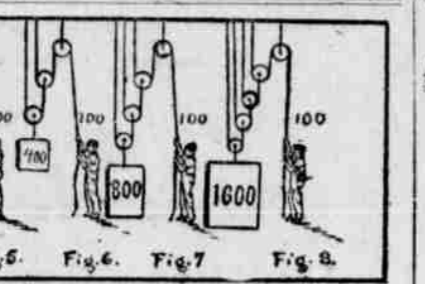


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## CZARINA AND HEIR TO RUSSIAN THRONE.



Russian terrorists, it is stated, are making greater efforts than ever before to carry out their plot to blow up the Czar's palace and kill the royal family. Dissolution of the duma has added to their hatred. The latest pictures of the Czarina and the Czarovitch, who was born Aug. 12, 1904, are shown above. The heir to the throne has four sisters, the eldest 12 years old.

## YANKEE KING IN AFRICA.

**Rules Over a Settlement with a Population of 400.**  
A New York capitalist who has recently returned from a trip to the Kongo Free State, where he is interested in the rubber business, told an interesting story of his meeting with an American exile in that far-away country, who is the "boss" of a small Kongo settlement, says the New York Times. After describing a visit to Buma, the capital of the Kongo Free State, he continued:

"With my party we took the steamboat and started up the Kongo River toward the center of Africa. The scenery was never monotonous. Now we come to high, white cliffs, now to low, sandy shore. Here were found heavy forests, whose edges ended apparently in the midststream, and there the low bush, which only half hid treacherous swamps land.

"Soon we reached a station on the French shore of the Kongo and landed by way of a giant tree trunk in the midst of a fairly settlement. The first thing to welcome us was a gorilla, who turned three somersaults and then extended a hairy, long-nailed paw. At a swinging gait the well-trained ape led us over a barren hillcock to a little settlement called Manr.

"The sight of the place I shall never forget. We walked beneath an avenue of carefully planted trees, and around us we saw signs of civilization not to be witnessed in any other corner of the world. Neither America nor Europe can ever hope to produce such a settlement. Orange trees, heavy with fruit, scented the cool air; a great white fountain, half hidden by clouds of fluttering doves, splashed lazily in an open square. All around were a claret, walled with wide-meshed wire and filled with fluttering, chirping birds. Occasionally, instead of birds, we found monkeys, apes, a leopard or a snake.

"The settlement had a population of some 400 Kongoleses, and you can judge of my surprise when I found that a Yankee was the 'king' of the settlement. He said his name was Alexander Fisher. He had made a collection of the country's birds and animal life, so that we could see them without troubling to hunt.

"The bungalow in which he lived was clean, roomy and well furnished. The well-upholstered furniture was comfortable and dull moments were enlivened by a first-rate graphophone and music boxes.

"Mr. Fisher beamed with hospitable joy. He dined us and showed us all over his settlement. The place is a trading store. Fisher said that business was dull, but he did not sigh from his luxurious exile. He loved his birds and apes and live stock more than he loved Yankee land and his wish was to be buried beneath the shadow of an orange tree, facing the river, in the center of the open square of his little kingdom.

"He told me he was born in Texas forty-eight years ago. By a few remarks which he dropped I imagined he had got into some serious trouble in Texas and fled the country. It's not likely that Fisher is his real name, but he was a man of fine physique and appeared to be well educated. He had complete control over his black subjects and could speak their language perfectly."

**Pooping the Hen.**  
Yeast—Any of your garden seeds up yet?  
Crimsonbeak—No; it's been so cold I guess our neighbor's hens haven't got on to the fact they're planted yet  
—Yonkers Statesman.

## INDIAN GIRL'S "COMING OUT."

In the early part of one September, I announced among the Apaches that my daughter, Eva, having attained womanhood, should put away childish things and assume her station as a young lady," says Geronimo, the famous old war chief of the Apaches, in the story of his life. At a dance of the tribe she would make her debut, and then, or thereafter, it would be proper for a warrior to seek her hand in marriage.

Accordingly invitations were issued to all Apaches and many Comanches and Kiowas to assemble for a grand dance on the green by the south bank of Medicine Creek, near the village of Nalche, former chief of the Chokonen Apaches, on the first night of the full moon in September. The festivities were to continue for two days and nights. Nothing was omitted in the preparations that would contribute to the enjoyment of the guests or the perfection of the observance of the religious rites.

To make ready for the dancing, the grass on a large circular space was closely cut. When the night came the singing was led by Chief Nalche; and Geronimo, assisted by his medicine-men, directed the dance.

First Eva advanced from among the women and danced once round the camp-fire; then, accompanied by another young woman, she again advanced and danced three times round the camp-fire; the next time she and three other young ladies advanced and danced four times round the camp-fire. This ceremony lasted about an hour.

Next, the medicine-men entered, stripped to the waist, their bodies painted fantastically, and danced the sacred dances. They were followed by clown dancers, who amused the audience greatly.

Then the members of the tribe joined hands and danced in a circle round the camp-fire for a long time. All the friends of the tribe were asked to take part in this dance, and when it was ended many of the old people retired and the "lovers' dance" began.

The warriors stood in the middle of the circle, and the ladies, two and two, danced forward and designated some warrior to dance with them. The dancing was back and forth on a line from the center to the outer edge of the circle. The warrior faced the two ladies, and when they danced forward to the center he danced backward; when they danced backward to the outer edge he followed, facing them.

This lasted two or three hours, and then the music changed. Immediately the warriors assembled again in the center of the circle, and this time each woman selected a warrior as a partner. The manner of dancing was as before, only two instead of three danced together.

During this dance, which continued

## WIVES WHO LIVE IN FEAR.

until daylight, the warrior, if dancing with a maiden, could propose marriage; and if the maiden agreed, he would consult her father soon afterward and make a bargain for her.

Upon all such occasions as this, when a dance is finished, each warrior gives a present to the lady who selected him for a partner and danced with him. If she is satisfied with the present, he says good-by. If not, the matter is referred to some medicine-man or chief, who determines the question of what is a proper gift. For a married woman the value of the present should be two or three dollars; for a maiden the present should have a value of not less than five dollars. Often, however, the maiden receives a very valuable present.

During this "lovers' dance" the medicine men mingle with the dancers and keep off the "evil spirits."

**WIVES WHO LIVE IN FEAR.**  
If Their Husbands Are Engineers They Are Always Uccasy.  
When railroad wrecks occur the fireman may jump, but the engineer, if he is faithful to his trust, must stay by the throttle. To do this means death in many cases. No one knows this better than the engineer's wife. The engineer men say that they become indifferent to danger and lose all dread of accidents and death. Their wives, it seems, are the ones who live most in fear.

Engineers' wives are not happy—if they love their husbands. Many of them will admit that a shadow rests on their lives if you ask them in confidence. Their husbands, perhaps, do not know it.

"I do not care to make my husband miserable, what little time he is at home, complaining of his profession," said an engineer's wife. "I never knew of an engineer quitting the business for his wife or anyone else but once. I heard of a man who gave up the road at the solicitation of his sweetheart. But after they had been married a few years he went back and was killed in a wreck."

"My husband has been an engineer on a fast mail train for nearly thirty years," said a woman with an unhappy face. "I have found that being an engineer's wife is kind of semi-irregular. The only time that I am absolutely sure that I am not a widow is the two or three days out of each week that my husband is at home."

"When we were first married he ran a switch engine in the yards and was at home every day. There wasn't so much danger of accidents in that. I hoped that he would always run one of these busy little engines with a headlight on both ends."

"But my husband was ambitious like other engineers. He was not satisfied with work in the yards. I shall never forget the day that he came home and told that he had been promoted to the road. He seemed very much pleased. I hid my feelings and made an effort to share his pleasure with him. He

## PA'S HOUSECLEANING.

When the April sun's a-shinin' hot an' things is nice and fresh,  
When the willer's droppin' tassels an' the blackbird's in the bush,  
An' pa comes in fer noonin' an' the floors is wet an' souse,  
Ther's it's "Laws-a-massy on us! Your ma's a-cleanin' house."

Then me an' Jim is sure to find rag carpets in the sun  
When we'd planned to go a-fishin' fer the suckers in the run;  
But while pa takes his noonin' an' the bosses eat their snacks,  
Us boys can beat them carpets while we're restin' up our backs.

An' then next day pa's certain sure to have to go to town;  
But he always leaves us orders, "Help to put them carpets down."  
An' at night, when he gets home again, you'd think, to hear him groan  
About the hardship of it, that he'd done the job alone.

Poor ma! She has it awful hard, she'll work until she drops,  
An' pound her thumb nails half way off, an' wet her feet with slops;  
She'll get so hoarse that she can't speak, an' sore at every bone;  
But pa, he says if it was him he'd let the house alone.

An' when that night the kids is sick an' has to have a drink,  
An' ma she can't get up because her back's in such a kink,  
If pa should bang the furniture whilst groppin' fer a cup,  
You can feel him gettin' mad enough to fairly eat her up.

So me an' Jim was sayin', if the time should ever come  
When pa an' ma should change their work an' ma should stay to hum,  
I wouldn't like to be a boy, but jest a little mouse.

To hear what things pa would say if he was cleanin' house,  
—Woman's Home Companion.

Being a True Sport isn't much of a recommendation in any other line.