

THE POWER IT REQUIRES.

Per Cent. Needed to Move a Railway Car, a Wagon or a Bicycle.

The exact power required to propel a bicycle under all the various conditions of road surface and grades has never been determined by actual tests, so far as is known, but from what is known about the resistance of vehicles of all kinds it is possible to calculate it with a fair degree of accuracy.

The force required to overcome the friction of a bicycle on a level road may be estimated from data obtained from other sources. To move a car on a railroad track when the rails are made of steel requires a force of about three-tenths of one per cent. of the weight. In this case the principal portion of the force is absorbed by the friction of the axles. In a bicycle the axle friction is very small, but the rolling friction is considerably greater than that of a railroad car, owing to the difference in the smoothness of the road. As one indication of what this difference may be, we have the fact that the force required to move a wagon varies from 2 1/2 per cent. on a hard road to 2 per cent. on cobblestones and 3 per cent. on soft ground. The friction of the wagon axles will absorb about one-half of one per cent. thus leaving about 1 per cent. to overcome the rolling friction on a hard road, with more yielding iron ties. On a clear asphaltum road this would be reduced about 25 per cent. The increased speed of pneumatic tires over the solid cushion proves that they act to reduce the rolling friction, therefore it is very probable that the actual force required to propel a bicycle over a smooth asphaltum road will not be over one-half of 1 per cent. of the load. This is only a trifle more than is required on a railroad track, and he remembered that the difference in axle friction is very great and the saving in this direction in a bicycle may be enough to offset the extra rolling friction.

Assuming the bicycle resistance on a level asphaltum road to be one-half of 1 per cent. the force required to keep the wheel in motion on such a road would be half a pound for each hundredweight, and the average weight of rider and wheel would be well within 200 pounds. On soft sandy roads this force might run up to three or four pounds. As to the question of power an average man is able to do one-sixth as much work as a horse. So, if the wheel is propelled at a speed of ten miles an hour on a soft country road it will be necessary for the rider to exert about two-thirds of the average man power. This velocity would, if kept up for any length of time, prove very tiresome for those who are not possessed of more than ordinary strength and endurance. The same speed on a hard road would only call for an exertion of from one-sixth to one-quarter of a man power, according to the condition of the surface.—New York Times.

Drunkards in Turkey.

This reminds us that the Turks, who are mentioned occasionally in the newspapers, have a singular manner of regulating drunkenness. If a Turk, overtaken with wine, falls down in the street and is arrested by the guard, he is sentenced to the bastinado; this punishment is repeated as far as the third offense, after which he is regarded as incorrigible and called "imperial drunkard," or "privileged drunkard." If he is then arrested, he has only to name himself, mention his lodging, say he is a "privileged drunkard," he is released and sent to sleep upon the hot ashes of the baths. Thus does Pouqueville instruct us. But suppose that the privileged drunkard is suffering from a still or a numb and cannot give his name, address or station? What then? Oh! what avail his honorary title?—Boston Journal.

Why Not?

The professor is very punctilious about the use of language. His youngest daughter has learned to ride a bike, and the fact is very evident in her conversation. Now and then he moved uneasily in his chair, but he made no comment. After a time he said:—

"Lucia, would you mind closing that door? I am getting as cold as an ick."

She rose to obey, and then turned with a puzzled air and inquired:—

"As cold as a what, father?"

"As cold as an ick."

"I don't understand you."

"That is very strange. It seems to accord with your theory of verbal expression. If a bicycle can consistently be called a bick, I see no possible objection to my alluding to an ick as an ick."

She Had Her Choice.

"And so she married a man named Smith. That shows she was pretty hard up."

"On the contrary, she says she had her choice of names."

"Had her choice of names and chose Smith?"

"That's what she said."

"Oh, well, I suppose she means her choice of his and hers, and she naturally chose his.—Chicago Post.

Precious Metals in British Columbia.

Official returns from British Columbia to the Dominion government show that in 1894 the aggregate value of precious metals mined in the province was \$1,000,000; last year the value was \$5,038,375, and this year the output will be greater, judging from the three months ended July 15, when the estimated value of gold smelted and shipped was \$1,750,000.

If too rapid eating causes dyspepsia, and it is its turn produces nervous exhaustion, debility, weakness, anæmia, etc., the first step in effecting a cure is to eat slowly. The second and most important is to take a course of Hawker's nerve and stomach tonic, which aids the process of digestion, invigorates the stomach, renews the vitality of the blood, relieves brain fatigue, and makes weak nerves strong.

Do you think it right to neglect a cough or cold? Hawker's balsam will speedily cure coughs, colds and all bronchial troubles.

A drowsy, irritable feeling indicates sluggish liver. Hawker's liver pills regulate the liver and remove all unpleasant symptoms.

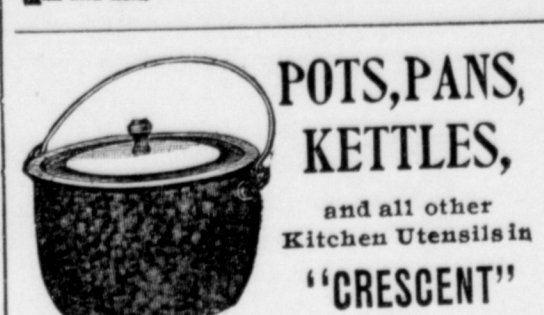
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AN INVOLUNTARY HERO.

How Two Pieces of Hot Ham Won an Officer's Promotion.

A Polish officer, now dead, who came to the United States soon after the Russians suppressed the Polish insurrection under Gen. Chlopicki, in 1831, used to tell with much zest the story of his promotion from the ranks. He was a private of cavalry when Chlopicki's retreat began. The troops had made a weary night march, and were in a bivouac for breakfast when scouts brought word that they were almost surrounded by a Russian force. Instantly the Poles hurried to their saddles, mounted, and sought a way of escape.

The young cavalryman had been boiling some pieces of ham for himself in a camp kettle. Anxious to "save his bacon" he dumped the half-boiled meat into his saddle bags and joined his companions. Two minutes later his horse became restive, at a most inopportune moment, for on surmounting a ridge the Poles had found themselves confronted by a Russian force of infantry.

There was but one thing to be done. The Russian line must be broken through at once. It was being rapidly reinforced. If the Poles should fail to cut their way out at the first charge they must be all captured.

On they rushed at the order to charge, and now our young trooper's horse had become fairly frantic and quite uncontrollable. He sprang away far in advance of the charging line. The rider, determining to make the best fight he could, swung his sabre, took a stronger grip with his knees, and gazed hard at the face of the Russian he expected to be launched against.

Just then a volley hurled into the charging line, but the foremost horse and rider escaped unharmed. A few moments and they were upon the enemy. Usually a horse refuses to leap at bayonets, but this one jumped furiously at the kneeling front rank and such was the momentum and fury of the beast that the Russian just in his front lost nerve, broke, and gave him entrance.

Though the gap thus made other Poles sprang a moment later. Striking right and left, they widened the breach, and in 10 seconds the Russian infantry was demoralized. The Poles escaped with slight loss and it was not long before the young leader quieted his steed, dismounted and found a chance to examine his half-cooled ham.

A few hours later the Polish general of cavalry rode up to the captain of the troop that had so distinguished itself, complimented him, and said: By the way, captain, who was that splendid young officer that led you all in?

"He wasn't an officer; that was only one of my boys."

"Not an officer! May the bullets strike me if I don't make him one! Call him out here at once!"

The general shook hands with the youth, promoted him to a lieutenantcy then and there, and gave him a place on his staff.

Some days later, when the captain called at headquarters, he sought out the new lieutenant, whom he found dolefully contemplating his unsaddled horse, which had a huge, raw sore on each side.

"What on earth is the matter with your horse?" asked the captain.

"Oh, nothing much!"

"But what made those terrible sores?"

"The same thing that made me a lieutenant," said the hero. "A big chunk of hot ham in each saddle bag; but for the love of the saints, don't tell the general or the boys."

The Bicycle and the Street car.

Although there have been many guesses as to the extent to which the bicycle has interfered with the profits of different industries, a great deal of the information on that head is unreliable. The influence of the bicycle on the street car, however, has been so direct that it was quite feasible to attempt to compile figures to demonstrate it. This has been done. A street railway paper has addressed a circular letter of inquiry to a number of street railroads, and is publishing the answers in a condensed form. As might be expected, the tenor of the replies varies according to the conditions reigning in the various cities.

Denver, with its fine roads and its 15,000 bicycles, is very seriously affected and on some of its lines a modification of the schedule has been necessary from the competition of the bicycle. Level Chicago loses 12,000 fares a day from the same cause. Hilly San Francisco finds no difference, but rather an advantage from the fact that the only place suitable for bicycling is Golden Gate Park, outside the city. As most of the cyclists keep their machines somewhere near it, they use the cars to get to the bicycles, to the advantage of the street railway companies. Some of the cities are so badly paved that cycling has no attraction for the inhabitants, who take their riding exercise in the country. Philadelphia, on the contrary, has recently laid down asphalt to a large extent, and the consequent diminution of street railway receipts from cycle competition is estimated at over \$2,000 a day, or over \$700,000 a year.

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MAKING A RECORD.

"Officer, I want you to lock me up for shooting game."

"Well, where's the game?"

"Oh, I haven't hit anything; only I want my friends to think I have; and if you'll have my conviction inserted in the Evening Globe I'll give you a fiver."—Boston Herald.

One Every Night.

One Laxa-Liver Pill taken each night during 30 days will cure Constipation, returning Headaches and irregular action of the bowels. Laxa-Liver Pills leave no unpleasant after-effect.

Explained at Last.

The ostrich when pursued in the desert runs his head in the sand and thinks he is hidden. This is because there is more sand in the desert than there is in the ostrich.—Boston Transcript.

A Jubilee Stamp.

Montenegro has issued a jubilee postage stamp in honor of the two hundredth anniversary of the Neigoch dynasty.

HE KNEW THE GAME.

It Was His Own, and He Took all the Tricks in Euchre.

As the train sped along over the Texas prairies a drummer for a St. Louis house came back into the parlor car and asked me to come forward into the smoker and take a hand in a game of euchre, says and exchange. I found two other chaps belonging to the "profess" and we had the car to ourselves. After a few minutes, however, a young man got on at a small station. He was a native, but he didn't seem to be over bright and not at all dangerous. He watched the cards with much interest for two or three games and one of the men finally observed:—

"Stranger do you play this game?"

"No, I don't," he drawled. "What do you call it?"

"This is called four handed euchre."

"Y-e-s."

"Lots of fun in it and you ought to learn to play. It's good to take hay seed out of the hair."

The young man removed his hat and ran his fingers through his hair as if expecting to comb out a lot of hayseed, and it was three or four minutes before he said:—

"So that's four handed euchre, eh?"

"Yes; nice game isn't it?"

"Pears like it, but I've one to beat it."

"Have you? What do you call it?"

"I call it a one-hand hold up and here's looking at you."

He was not only looking at us, but his two guns were doing the same things, and the man looked bright enough and carried a smile at the corners of his mouth.

"Yes your game beats this," said the drummer after a look. "Boys he wants our heads."

We put down four watches and four wads of greenbacks, and the young man reached for them, with the remark:—