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"Mathematical Joe"

HOW did he get the name? If you but knew Joe you wouldn't ask such a question.

When he first went to school, arithmetic was the only study he delighted in. Later he studied algebra and geometry. By that time Joe simply lived for mathematics. While other boys played, he was hard at work; when others talked of baseball and football, mathematics was his subject—his "Mathematical Joe," he became, and the name stuck.



"JOE SLIPPED AND FELL"

scientific studies, and thoroughly enjoyed the work.

Last summer Joe's family spent their vacation in Switzerland.

One day he and his brother started off for a climb in the mountains without a guide.

Roped together, they were getting along famously, when Joe slipped and fell backward over the edge of a precipice.

Luckily, the rope caught in a tree



LUCKILY THE ROPE CAUGHT

that grew outward from the cliff, and they were held safely for a time. But how to escape from this dangerous position? They couldn't hang there forever.

"If one of us could only reach the crotch of the limb above," thought Joe, "he could haul up the other."

Then he proceeded to make use of his scientific training. He began to make the rope move slowly at first, and then increased the length of the swing until he was able to grasp a great, massive stone that was detached from the face of the cliff.



THE ESCAPE

The great weight on his end of the rope then made his brother move upward toward the limb by which they were held. Jack reached it in safety, and pulled Joe up after him. They crawled along the limb, and were soon back on the path.

No longer did they make fun of "Mathematical Joe." If his "dry, old science" could save life, it must surely be worth studying, after all.



BACK ON THE PATH

A Queer Hat



WOULD you like to wear a hat like this, boys and girls? It is really worn by an old man, once a soldier, who lives in Portland, Ore.

He never cares to carry an umbrella, and so he made this hat, which serves both to cover the head and protect him from rain.

The hat looks so funny that quite a crowd follows the old man when he goes down the streets, but he does not seem to be at all mindful of the stares.

Good Times Along the Creek

WHAT a treasure-trove the old creek is! What riches of nature's stores are hid 'neath its rippling surface, or displayed along its banks!

The creek itself is wonderful, always surprising you with its wayward fancies and restlessness. Here it runs along smoothly, in seeming content; there it broadens out and its waters ripple and rustle and swirl over and around rocks without number; then it divides and shows you in its middle as pretty a little island as you might wish for your pirate's cave; often it bends and curves in a way that keeps you in the height of expectancy, wondering what new view will stretch before you.

What comfortable places the banks of the creek afford! There, to give grateful shade, are the fringes of oak, dogwood, birch, beech and witch hazel trees—the last variety so called because in the early days of our country old men and women thought to be witches gathered the roots and used the juices as a cure for all ills.

Here, too, you see the beautiful swamp cabbage, standing in places where the mud has collected, with its purple folds rolled up in pointed bundles. Near it wave the tassels of the swamp alder, and close by you see the spotted leaves and stalks of the yellow adonis.

"Snake feeders" glide here and there, and, without thinking, you look eagerly around for the snake, but nothing but wee toads and grasshoppers greet your eye.

Where the thorny green briars cluster the hardy robins winter and the pheasants and quail eat the seeds and hide there from their enemies.

Over the water the bank-swallows skip, sometimes touching the surface just as the stones you shy across to the other side. The kingfisher dives after his meal and the green heron, too, darts after minnow or pollywog. Right above you the catbird scolds or laughs mockingly.

Along the bank the muskrat has his home. Just under the water's edge he digs his hole. It slants upward for quite a distance, and at the end of it is his nest, nice and dry. The muskrat and the raccoon both like muskrats, which they dig from beds in the shallow. Beside some stone or tree near the water, you will see piles of these shells, where the animal has eaten their contents.

If you care to fish, the sunfish provides just as good sport as the mountain trout. Among the sand and pebbles it builds its nest and fiercely drives away its enemies. Even a chub, red-fish or a catfish may come to your hook. Of course, you'll catch lots of minnows, but who wants minnows?

Frog eggs swing from the branches of plants under water. The stupid-looking tadpoles you see frisking around. From a log or stone near the bank yellow and speckled-throated frogs, propped up on their bowlegs, watch you solemnly.

Turtles and turtles plunk into the water and are lost sight of. You know, the ribs of the turtles are united their whole length, while those of the turtle are separate at the ends.

Oh, yes, there's lots to be seen. After you've had a refreshing swim and lie there under a shady tree you don't feel like ever moving—even to go home for something to eat.

The Cat and the Bear

LEUTENANT C. D. RHODES, U. S. A., relates in St. Nicholas the following story of how a cat compelled a bear to flee:

Chris Burns, the veteran first sergeant of Troop D, had a cat, which, during the summer camping of the troop at the Lower Geyser Basin, made her home within the sergeant's tent. Here, curled up on a pair of army blankets, she defied the world in general, and dogs in particular. When the latter approached, she would elevate every bristle on her brave little back, her eyes would glow like live coals, and her tail would swell up threateningly. If dogs approached too near, she would hiss and exhibit the usual signs of hostility until the intruders had vanished from her neighborhood.

One day, when the camp was bathed in sunshine and every soldier in camp felt lazy, an inquisitive black bear came down the mountain side, and, whether because he was in search of adventure or because attracted by a savory smell from the cook's fire, began to walk about among the white tents of the cavalry command.

Suddenly the cat caught sight of him. Dogs by the score she had seen, but this particular "dog" was the largest and the hairiest dog she had ever seen. But she did not hesitate. It was enough for her that an enemy had invaded her special domain. Hissing forth her spite, while her little body quivered with rage, she darted forth at the bear. The onslaught was sudden, and one glance was enough for Bruin. With a snort of fear, Bruin made for the nearest tree, a short distance away, and did not pause until he was safely perched among the upper branches! Meanwhile the cat stalked proudly about on the ground beneath, keeping close guard over her huge captive, her back still curved into a bow and her hair still bristling with righteous indignation, while her tail would, now and then, give a significant little wave, as if to say: "That's the way I scold impudent bears."

The soldiers, who meanwhile had poured forth from their tents, could scarcely believe their eyes; but there was the bear in the tree and the cat below, and there were those who had seen the affair from beginning to end.

And perhaps the strangest part of it all was that the bear would not stir from his safe position in the branches until the cat had been persuaded to leave her huge enemy a clear means of retreat! Then he slid shamefacedly down from his perch and ambled hastily off toward the mountain.

The Ball Did It

Neighbor—Was it you who broke my window, Tommy?

Tommy—Well, I helped.

Neighbor—You helped, did you? How helped?

Tommy—It was a ball that broke your window—but I threw it.

More Gradual

Jimmy—Who's got to tell Joe's mother he's hurt?

Jack—Let's send Clarence. He stutters so, he won't tell it so sudden.

DAY DREAMS IN THE HAMMOCK



OF GOBLINS and princes and ladies so fair, And castles and treasures and jewels so rare;
A big, shaggy bear;
A princess who's carried away by a knave,
And brought back again by a hero so brave;
A wonderful cave.

I know that you'll say this is all a day dream;
The fancies I'm spinning are not what they seem—
They'll vanish like steam.
But truly they're real; for, whenever I look,
A witch or a giant in each shadowed nook,
Like those in my book.

Of these and lots others I dream, hours a day;
It's easy to think of grand things when you stay
In hammocks that sway.
The trees tell me stories; the sparrows, in song
'Bout Fairyland elves, to fly there with me long.
With sprites I belong.

"Dottie Dimple"

IT IS true that Elizabeth had such pretty dimples, and as she was so merry, always laughing, whenever you saw Elizabeth you noticed her dimples. But, then, what was the use of having such "ornaments of beauty," as Ralph called them, if you didn't make use of them?

Dottie was a close friend of Elizabeth, so it was natural that she should admire the dimples—but she so longed to have such dimples herself, and spoke so much about it to the other girls that they began to call her "Dottie Dimple."

Ralph cured her of the "dimple"



PAINTING DIMPLES

crase," as he dubbed it. Brothers take lots of liberties, you know, that others don't dare to.

Dottie was taking a nap just before school time. As Ralph saw her mischievous idea entered his head. Running back to the tool shed he grabbed a paint brush and carefully painted two dimples on Dottie's cheeks.

When Dottie awoke it was so late that she set off at once for school. Dottie declared to herself when she came home that day she would never say the word "dimple" again. All the afternoon the girls had made fun of her, nor did she gain peace until she reached home.

Strange to say, although Ralph had cured her of the habit, she wasn't at all grateful to him!

A PICNIC WITH A GRIEVOUS ENDING

"TAINT no use talking, Jack; I've got to go with the folks. Last year I sneaked away and left grandpa with all the baskets to carry. Pa was out of town, but he told him about it when he came back, and pa says I've got to do my share of the work this time or else I can't go."

Jack Warner whistled in sympathy as Bill Mumford looked dolefully down from the top of the freight car upon which they were perched.

"Too bad," said he; "half of the fun you get on a picnic is in going and coming—and you can't have any fun if you've a lot of baskets to mind."

"I'll meet you at the grove, anyway. None of the other 'robbers' are going. They're all going to wait for the Lutheran picnic, but I guess we'll find something to do."

Jack shinned down the ladder and made a bee-line for dinner, leaving Bill to scrape from his trousers some of the tar he had collected where he had been sitting.

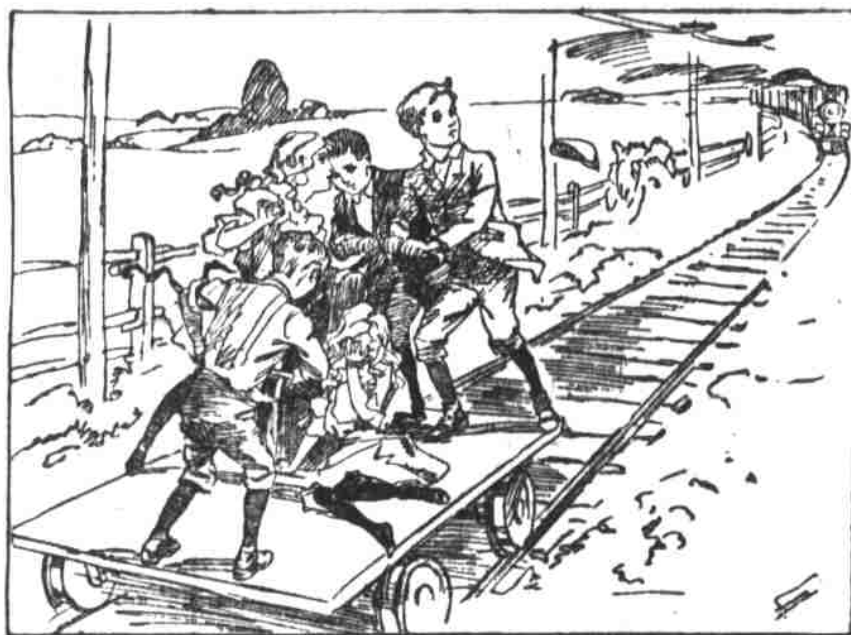
The next morning saw the perspiring Bill laboring toward the station under the weight of two heavy baskets.

"Gosh ding it!" he said to himself; "if it wasn't for what's comin' I'd chuck the job and run." But Bill never ran from a picnic in his life, and didn't intend beginning now.

However, diligent work is always rewarded. Bill managed to enjoy the ride in the train, even if he was with the folks, and his spirits had risen to their highest pitch by the time Chestnut Grove was reached.

Jack was there to meet him with a hearty yell, and helped him carry the baskets to the table selected.

Of course, the two first made a bee-line for the lake. That was a custom from which no member of the "Bloody



SUDDENLY AN ONCOMING LOCOMOTIVE APPEARED

Robbers" ever departed. For almost an hour they paddled on the water, and then, fearing lest their pocket money be all spent for the hire of the boat, they made for shore.

Sad to say, the "merry-go-round" was out of repair, but the boys found that they could easily push it around themselves and get as many rides as they wished without paying. Tommy Jones was imposed upon by being made to do most of the pushing—Tommy always did the work, while the others had the pleasure.

Then they passed a busy half hour in the swings, Jack and Bill doing stunts which caused them to be admired and envied by the onlookers.

Luncheon time had now arrived. Bill did his very best to eat up everything—

BERTIE was downright lonesome. You know it's awful to feel that way. But when the chum that you've known ever so long, and who taught you ever so many nice games moves away, things aren't just the same for a long while. Besides, it was raining, and that always makes you feel worse.

Bertie jingled together the knife with one blade, the bull's-eye and the lucky stone that Tommy had given him before he went away. Instead of cheering him, as they generally did, these treasures only made him more sad and discontented.

Flattening his nose against the window pane he gazed long and earnestly at the house across the way, where the new people had just moved in. Bertie was sure he wouldn't like them, 'cause he somehow felt that it was because of them that Tommy had gone. Yet he would like to know if the new folks had any little boys.

Just then he heard some one call from the house, "Jack! Jack! Come right in out of the wet this minute!"

Oh, so there was a boy! Bertie ran quickly upstairs to see mother, but as he couldn't find her he asked auntie if he couldn't go and play with the little boy across the street.

Auntie, hardly hearing him, nodded "yes."

He scampered through the rain and knocked at the door.

"Good mornin'. Auntie says I could come over and play with your little boy if I'm not in the way," he explained to the kind-looking lady who came to the door.

The lady looked rather puzzled. "You see, I heard you call Jack to come in out of the rain, and I s'posed he was lonesome like I was," Bertie went on, eagerly.

At this the lady laughed and laughed, so that Bertie's feelings would really have been hurt had she not looked so nice.

"Jack is a monkey," at last she managed to gasp, "but I believe he would like to play with you just the same."

Indeed, Jack could play, and he was

much more interesting than a boy. All that afternoon they romped and had all kinds of fun.

That evening Bertie told mother about the new "boy" across the way. "I think he's grand," said he, as he wound up his story.



BERTIE AND JACK

Experiment With Matches

In a basin of water float a number of matches, arranging them so that the heads are turned toward the center, and are the spokes of a wheel. Leave a little space in the very center.

Into this place dip a piece of soap. Immediately the matches will move away from it toward the sides of the basin.

On the other hand, if you will dip in the space a large lump of sugar, the matches will be attracted, and will move toward it.

Its Proper Place

"Have you ever seen a lion skin?" asked the stern school director of a little boy in the front row.

"Yes, sir," was the prompt response. "Where?" questioned the director, much gratified at the boy's earnestness.

"On the lion," said the scholar.

Mother—Jenny, child, how do you get your hands so dirty? You never saw mine as dirty as that!

Child—No; but I guess grandma did.

as they were well acquainted with the boys' reckless exploits, but at last they consented. The old car was so rusted that it was hard to move. However, as the grade grew steeper, it fairly whizzed down the mountain. Thoroughly frightened, the girls clung to the car and wished they hadn't been so foolish, as to take such a risk, while even the boys would have liked to go a little slower.

When they reached the bottom of the slope their speed was tremendous. On they flew along the level stretch. Suddenly, around the bend before them, appeared an oncoming locomotive. Desperately the three tried to stop the car, but there remained no time. Seizing the girls, they leaped from the hand-car and rolled down the bank into a muddy ditch.

The engine dashed into the hand-car, but, of course, no harm was done. As for the boys and girls, they were wet and muddy from head to foot. You can imagine the reception they got when they returned to the picnic grounds.

Fathers and mothers united in saying that not one of them should attend another picnic either that year or next. Jack and Bill wished that they had waited for the Lutheran picnic.

Didn't Know All

"Johnny, you know why I'm going to punish you, don't you?"

"What for, pa?"

"Now, don't pretend you've done nothing. I know all the bad things you've done today."

"I don't think you do, pa. You don't know where I hid the strap you whacked me with."

Real Proof

As small Tommy was about to climb into his chair at the dinner table his mother said: "Are your hands clean, dear?"

"Course they are," answered Tommy. "If you don't believe it, look at the towel."

To Make Swimming Fish

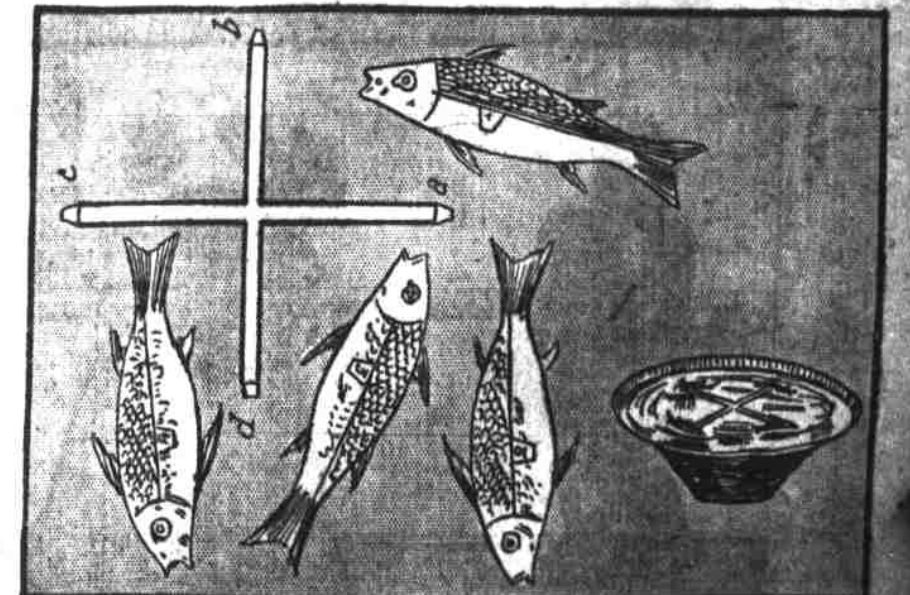


DIAGRAM EXPLAINING THE TRICK

THAT paper fish can be made to swim without aid may seem impossible, but if you will follow these directions you will see for yourself that it can be done quite easily.

Cut out of very thin cardboard a cross of the same shape as that given in the diagram. Bend the ends upward.

From the same cardboard cut out fish such as are shown here. Glue the fish to the places indicated on the cross by the letters a, b, c and d.

Now get four pieces of camphor, each about the size of a pea. Attach each little ball of camphor, by glue or gum, to the tail of a fish, so that the camphor will lie beneath the surface of the water when the whole is floated in a basin.

No sooner is the cross placed in the water than the camphor gives signs of dissolving just as soap does when added in water, and so violent is the action that your fish will swim rapidly in a circle.

MR. RABBIT WASN'T HOME—BUT THE SNAKE WAS

