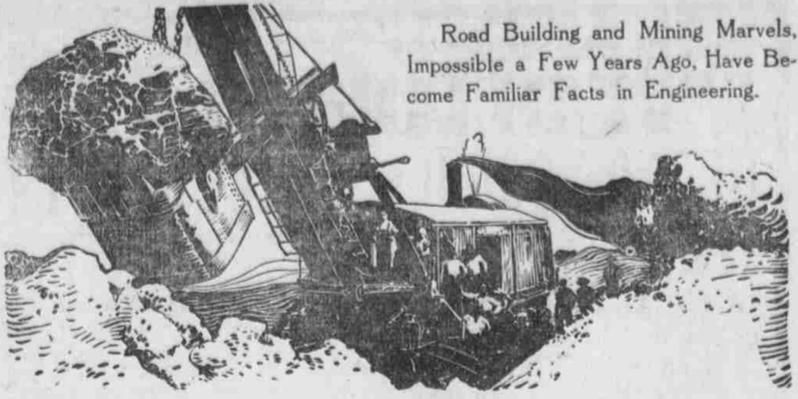


WHAT THE STEAM SHOVEL IS DOING FOR THE WORLD



Road Building and Mining Marvels, Impossible a Few Years Ago, Have Become Familiar Facts in Engineering.

THE American steam shovel—and all steam shovels are of American manufacture—marks an era in man's conquest of nature. One of the most powerful of the tools that steam and steel have made possible. It ranks among the greatest labor savers and wealth producers engineering genius has devised. These grunting Titans, although almost unknown beyond the shores of America, are adding hundreds of millions of dollars to the world's wealth and doing the work of armies of men. Whether digging the big canal across the Isthmus of Panama, loading ore trains on the lake iron ranges, leading new railroads across the Rockies, tearing away the mineralized walls of Western canyons, making huge excavations in the rocky floor of Manhattan island, stripping coal veins in Pennsylvania, quarrying railroad ballast in the Mohawk valley, or delving for copper in Spain, where once tolled the slaves of the Caesars—the steam shovel tells a splendid story of the American industrial advance.

The biggest user of steam shovels in the United States is the Steel Corporation. That is why the trust commands the iron ore market. The millions of dollars a year that the trust saves by using steam shovels would pay the dividends on a good share of the half billion dollars of common stock. Up in one of the great open-pit iron mines in Minnesota ore is mined and carried away with amazing speed. The mines are worked from the surface by open cut, as a reservoir or canal would be dug. Over railroad tracks run through the pit the big ore trains are hauled alongside the giant shovels. One shovel, picking up six tons of ore in each assault on the ore bank, loads a fifty-ton steel car in three minutes. Trainsload after trainload of ore is hauled away to the ore docks at the head of the lakes, there to be put aboard the big lake ore ships at a speed of 300 tons a minute.

The Panama canal job has recently thrown the American steam shovel in the limelight before the world. When our government undertook the task that had baffled the world's engineers, and promised that it would be completed within a few years, even the American

people were skeptical. But the engineers who planned the work knew the possibilities of steam shovel excavation—then untried on big canal work. They had seen giant shovels in iron mines and stone quarries, and they knew that steam shovels and dynamite could make mountains disappear. The government put in the biggest order for steam shovels ever given in the country. These shovels were sent in ships to the isthmus as fast as they could be made. Now there are more than a hundred shovels cutting the canal from ocean to ocean, and making world records in heavy excavation work.

Just as American steam shovels have revolutionized iron mining and copper mining, they have revolutionized canal digging. When the Erie canal was built, in the '20s, the pick and shovel, the wheelbarrow and the wagon, were the only tools in excavation work.

The Suez canal cut was 80,000,000 cubic yards. It took ten years to do the work, even though most of it was sand. The Panama canal calls for 140,000,000 cubic yards of rock and earth excavation and dredging. Last year 35,000,000 yards were completed, or nearly half as much work as was done on the whole Suez canal. On the central division, which includes the Culebra rock cut, the steam shovels did 50,000 yards a day, 1,500,000 yards a month. This steam-shovel performance on the Panama canal makes the Suez canal construction look like digging a sewer trench.

The first steam shovels were used in railroad construction, and they now are part of the working equipment of every important railroad in the country. Every big contractor has his battery of shovels; some contractors have scores of them at work from ocean to ocean. In the rebuilding of American railroads, especially through the mountains of the West, where enormous quantities of rock had to be handled in reducing grades and curves, the steam shovel was of invaluable service. Harriman, in rebuilding the Union and Southern Pacific, tore away mountains and filled up canyons with steam shovels. On the new lines that have been built to the coast—the St. Paul, the Western Pacific, and Clark's road—the steam shovel has made new records in railroad construction. Many millions of dollars have been saved, and improvement work, of hitherto prohibitive cost, has been made possible.

A SQUAW'S STORY.

The May Begins Birthright Which Went to Another.

Suna-was, a full-blooded Comanche Indian squaw, whose memory runs back beyond the time when the red man left the land east of the great "Father of Waters" to take up his home on the vast prairie stretches, wants a home to die in, and her story so touched an Oklahoma member of Congress that he has taken up her case with the department of the interior, with the prospect that Suna-was may again come into the birthright of which she asserts she was robbed.

Years ago, called by the spirit of wanderlust and the hope of a new life and home, she picked up her belongings and followed a Mexican suitor into Mexico. Little knowing that the great United States government was going to divide up the lands of her tribesmen and give each man, woman and child a farm of 160 acres on the fertile plains of the great Southwest, where the braves of her people once hunted the buffalo.

Years went by until one day there came to the Indian agency at Anadarko a young woman. With this young woman came thirteen children, and then the story was heard that she was the daughter of Suna-was, who had died in Mexico, and the thirteen children were the grandchildren of the old Comanche woman.

The government believed the woman's tale, and so the woman and the thirteen children were each granted allotments of 160 acres of the best land in the Kiowa-Comanche county, or 2,240 acres in all.

But the Comanches had suspicions. They discovered that the woman representing herself to be the daughter of Suna-was was "too much Mexican."

Last November there strolled into the office of Representative Scott Ferris in Lawton a party of full-blooded Comanches. With them was Suna-was, who told her story to the representative. She made affidavit that all her children were dead.

SHORT METER SERMONS.

Physical force cannot overcome spiritual force. —Rev. W. P. Hines, Baptist, Lexington, Ky.

The man who has hold of the eternal verities is free as air. —Rev. A. P. Fitch, Congregationalist, Boston.

The greatest need of our day is the largest hospitality toward Jesus Christ. —Bishop E. H. Hughes, Episcopalian, San Francisco.

Experience is the illuminated path way along which God's richest blessings come to man. —Rev. G. R. Wallace, Congregationalist, Toledo.

Death is a necessity if the race shall continue to multiply; and only our thought surrounds it with horror. —Rev. T. E. Barr, People's Pulpit, Milwaukee.

A clean heart and a right life will make the homeliest face beautiful. —Rev. W. W. Snyder, Presbyterian, Pittsburg.

If you want to know whether Christianity is true, try it. The objections contradict each other, and are not true. —Rev. C. F. Aked, Baptist, New York City.

There is nothing good in humanity that religion does not strengthen, there is nothing harmful that it does not seek to eradicate. —Rev. J. A. Hensley, Evangelist, Binghamton.

The cry for help coming from a human heart never fails to move the heart of Christ with sympathy—sympathy that reveals itself in action. —Rev. N. Bailey, Baptist, Providence.

The time has gone by for the modern church to maintain its stupid conservatism. The church must change with the changes of life and times or go under. —Rev. C. H. Eaton, Baptist, New York City.

Whenever a nation, a city or a single heart looks up to God in love and obedience the windows of heaven begin to open and an overflowing blessing begins to descend. —Rev. R. F. Maclaren, Presbyterian, Los Angeles.

As the telescope adds its millions of stars to the 6,000 visible to the naked eye, and the photographic plate adds again to that, and as the brilliancy and the magnitude and the glory of coloring belong to those revealed by the higher powers so are the promises of God made evident to such hearts as are especially trained to see the greater things. —Rev. T. A. Moffat, Congregationalist, Newark.

No Right to Complain.

Did you ever notice how much harder it is to satisfy the man who got in for nothing than the man who paid for his seat? The rule holds good apparently in church, too, for a writer in Harper's Magazine says:

A Buffalo preacher tells a story of a woman who after hearing him preach informed a friend that she did not like the services at all. The seat was hard, she said, the singing was poor, her little girl, who overheard her remarks, and who was present with her at church, said:

"But, mamma, what can you expect for a penny?"

A Politic Inquiry.

A few days after a farmer had sold a pig to a neighbor, says a writer in the Cleveland Leader, he chanced to pass a neighbor's place, where he saw the little pig sitting on the edge of the pig pen, watching its new occupant.

"How d'ye do, Johnny?" said he. "How is your pig to-day?"

"Oh, pretty well, thank you," replied the boy. "How's all your folks?"

Two Kinds of Tears.

There is something very genuine in the domestic situation indicated by this scrap of conversation, printed in the Cleveland Leader:

"My wife has cried only twice since we've been married."

"When I told her I couldn't afford to get her a set of furs for Christmas, and when I got 'em for her."

Infants' foods form a considerable item of importation, \$41,000 worth in 1908.

YESTERDAYS.



A PRESENT FOR TEACHER.

—Minneapolis Journal.

AN EVENING PRAYER.

To-night I lay the burden by, As one who rests beside the road, And from his weary back unbends The wheeling load.

I kneel by hidden pools of prayer— Still waters fraught with healing power; In God's green pastures I abide This longed-for hour.

I know that day must bid me face Courageously my task again, Serving with steady hand and heart, My fellow men.

To hold my sorrow in the dark, To fight my fear, to hide my pain, And never for one hour to dream The toil is vain—

This to-morrow; now, to-night, Great, pitying Father, I would be Forgiveness, uplifted, loved, renewed, Alone with thee.

—Grace Duffield Goodwin.

Under Difficulties

Haskins never did care for Selmore anyway. At first he had disliked the fellow mildly on general principles, but later he hated Selmore cordially, for a specific reason. Alice Clark was the reason.

When Selmore first saw Alice Clark and fell a victim, Alice was in Haskins' car. Though he did not realize it, Haskins had grown to consider her as belonging to his car quite as much as he did himself. He had glowed with a little proprietary pride when he detected the gleam of interest and admiration in Selmore's eyes, but he was not prepared for what followed.

Selmore had stopped by the car and after being introduced, had cheerfully



"THANK THE FATES."

asked for a lift to his destination and got it, occupying the entire time of transit in conversing with Alice quite as though Haskins were a hired chauffeur.

A week later, when Haskins called on Alice and found Selmore there, he learned through the conversation that Selmore had accidentally met her in a candy shop and had promptly asked to call. And he kept on calling.

Haskins tried to convince himself that had it been any one else on earth than Selmore he should not have cared. It was simply, he told himself, because he disliked Selmore so. Alice certainly had a right to have as many callers as she chose, inasmuch as she was not engaged to himself. It was the first time the idea of being engaged to Alice had presented itself to him, and he thought about it a great deal after that, mainly because Selmore persisted in interfering so with his established routine.

He was especially upset one evening when, having made an engagement over the telephone to take Alice auto-mobiling, he called only to find that Selmore had just arrived.

Out of politeness he asked Selmore to come along and to his rage Selmore brazenly accepted. Haskins had quite counted on that ride as a pleasant one, for it was a springlike evening. There was to have been a spin over the boulevards, supper at some quiet place and then home in the moonlight—and who could tell what might happen? Now, here was Selmore, fastened on him for the whole evening. He tried to make himself believe

that Alice had looked a trifle disappointed when Selmore accepted, yet he bitterly felt it could not be so, for Selmore was looking especially handsome in his new spring suit.

The ride progressed in an electric silence on Haskins' part and with fluent conversation on Selmore's. They had the spin, and the supper, which was as ashes in Haskins' mouth. Then they started home. On a downtown street corner the machine wheeled and stopped. Haskins took malicious delight in making Selmore descend and help him back off the car tracks. Then he investigated irritably, for accidents were alien to his car.

As he delved amid the machinery Selmore sat almost amiably talking to Alice. When at last Haskins had to crawl under the machine and lie flat on his back while he pounded the mechanism he knew how anarchists feel.

"Here, Haskins," Selmore called down finally, "can't you fix it? I should think you'd know your own car better."

"It's getting terribly late," said Alice.

As Haskins plodded away to a telephone he seethed with hatred of Selmore. After wrestling with the phone and finding he could get no help Haskins phoned his home garage and then went back to the two in the car.

"They're sending a tow after me," he said. "You two can just catch the last suburban train if you hurry. It will relieve my mind if you'll take it, so that I'll know Miss Clark will get safely home."

"Splendid idea!" agreed Selmore, and leaped out. He reached up a helping hand to the girl in the back seat.

Maybe she had had too much of Selmore, maybe she felt sorry for Haskins; maybe—

At any rate she never moved. She regarded Selmore coolly.

"I am not going to desert the car and let Mr. Haskins wait here all alone till goodness knows when!" she said distinctly. "You hurry along and catch the train, Mr. Selmore! I shall wait and be towed in with Mr. Haskins."

So Selmore had to go. As Haskins watched him vanish around the corner he was conscious that a great joy percolated throughout his system. He climbed out of the driver's seat and in beside Alice.

"Thank the fates!" he breathed. "Now maybe while we're waiting I can have a chance to say a few things to you that I've been wanting to say!" Chicago News.

PLANS SCHOOLS FOR SOUTH.

Priest Pledges Himself to Raise \$100,000 Yearly to Help Negroes.

A movement has been started by the Catholic church in the United States for the wholesale conversion of negroes and the Rev. John E. Burke, pastor of the only Roman Catholic church for negroes in the city—the Church of St. Benedict the Moor, in West 53d street—is in charge of the work, the New York Evening Telegram says.

It is the plan of Father Burke, who has the active support of all the prelates in the country, to raise \$100,000 every year in order to establish new schools, mission chapels, substantial churches and a seminary.

At present there are only four negro priests in missionary work among their own people and their field is confined to the southern states. The intention of the church authorities is to increase this number to hundreds.

Cardinal Gibbons has taken an active interest in the extraordinary campaign and recently he sent a circular letter to the clergy and laity of the country calling attention to the needs of the negro mission movement and urging all to make a special effort to help it along.

Father Burke, in speaking of the needs of the Catholic negro of the country, said:

"We want to tear down the old mission chapels of the south which are dilapidated and build new ones. We want to build substantial churches where they are needed and establish parochial schools for the education of the young. The colored people themselves have not the means to do these things."

"We also want to get more young men of the race to study for the priesthood and seminaries will be necessary. Our idea is to make this not only a campaign of religion, but one of education as well, for we realize that both go hand in hand, and to make colored people of the south good Catholics we will have to educate them."

Most of the funds to be raised by Father Burke will be used for missionary work in the southern states.

It's human nature to believe all the good we hear of ourselves.



Stomach and Nerves.

There is no one living who has not been compelled with more or less frequency to learn by actual experience what is meant by indigestion, the lessons varying from the occasional acute attack, traceable to some unmistakable indiscretion, to the condition of semi-invalidism in which many persons languish, solely by reason of the uncertain action of the digestive processes.

In most cases of indigestion, or dyspepsia, the stomach or the intestines are at fault; but this is by no means always so, and great injustice is done by a failure to recognize that the stomach is not the real culprit, but is only put forward by the rest of the system, as it were, as a spokesman. It faithfully performs its office of lodging a complaint for the general economy, and it is then immediately dosed and redosed, with disappointing results, because the real trouble has not been recognized or attacked.

Everyone has heard that it is best not to eat when extremely fatigued, but this is not because the stomach itself is tired, but because the entire system is temporarily too enfeebled to send out sufficient blood supply to cope with the increased work that digestion entails. The stomach, in order to do its work properly, must be fed with the nervous force that comes from good circulation, and this is impossible if the brain is calling for more than its share. This, again, is the reason why brain workers should not go straight from their work to a heavy meal, but should take a walk or some simple gymnastic exercises first, in order to draw the blood from the over-supplied brain down to the stomach, the turn of which to work has come.

The same reason should forbid immediate hard work of any kind after a meal. Let the stomach have its fair turn.

Much indigestion may be classed as purely nervous in its origin. In this the whole nervous system is out of order and on strike, it would be strange if the nerves of the stomach should escape the general calamity. In this type, constant doses of medicine for "stomach trouble" will do little good, but judicious rest and general toning up of the whole nervous system may work a miracle.

That most wretched of all the brief illnesses known as a "sick headache," in which, as the name implies, the stomach is a co-sufferer with the head, is much more apt to be caused, by irritated brain centers than by abuse of the digestive organs, as is proved by the frequency with which an attack is brought on by overuse of the eyes, or any continued strain or excitement.—Youth's Companion.

Vanity Tricked.

During the early excesses of the French revolution a rabble of men and women were rioting in the streets of Paris. Lafayette appeared and ordered a young artillery officer to open fire upon them with two cannon. The officer begged the general to let him try first to persuade them to withdraw.

"It is useless to appeal to their reason," said the general.

"Certainly," answered the officer, "and it is not to their reason, but to their vanity I would appeal."

The officer rode up to the front of the mob, doffed his cocked hat, pointed to the guns and said:

"Gentlemen will have the kindness to retire, for I am ordered to shoot down the rabble."

The street was cleared at once, for none could brook the idea of being classed with the scum of the city.

The Supper.

"Two speeches only had the supper—'Now, eat it,' yield!" the first; "For Rome and Gracchus!" followed this.

And in these he was rehearsed. The opening evening came and he rushed on with the attackers; "Now, Katie Field!" to his foe he said. Then yelled: "For Rum and Crackers!" —Boston Evening Transcript.

While a good many men hate to be caught, that is the only part of being chased by a woman that they object to.

WATCH THE LITTLE THEFTS.

Head of Firm Says All Petty Graft Isn't in Pittsburgh.

"Petty stealing, cheap graft—it's not all in Pittsburgh. The head of the firm was angry. 'Send for that collector,' he said. The collector came.

"Seems to be too much work for you," the managing partner said. "Probably you need help." The collector believed another man would be a valuable addition to the force. "I'm thought so," the manager said, and then, reading from a slip: "March 3—Left store 8:30; went to home at 9:45 East Steenth street; returned to store at 11:25; 2:15 went to Orpheum, etc."

He turned on the now amazed collector. "Hard work, wasn't it?" he snapped. "Now, do you desire to work, help pay the expense of the detective who trailed you and make good, or will you quit now?"

"I believe I'd like to work it out," the trembling collector replied.

"Well, get a move on you, then," was the parting admonition of the manager. And the collector got it on.

"Cheap graft," the manager resumed. "Often wonder how some men can stoop to such meanness. Not long ago I observed that a certain young man had long been ordering furnishes, needles, and such things by letter and paying for them in stamps. That seemed queer. I don't care for business that's crooked, so I investigated that customer. Found he worked in a bank; son of a wealthy father—just cheap graft. He'd been stealing stamps for a year.

"We allow our outside men to turn in daily accounts of money spent for car fare. Often one man collects it for several to save making many accounts. When I noticed one of these men charging me more car fare than I believed he spent I looked him up. Discovered he'd added a figure 1 to the 80 or 90-cent account every day and so got \$1.80 or \$2—cheap stealing for a dollar. Cost him his job.

"Nothing so detestable and so annoying in business as this form of dishonesty. There's stealing going on now in this store that I don't know how to touch. The question in the minds of employees is, 'Should I tell the firm, or is it any of my business?' When we can get employees to understand that the firm's interests are theirs we'll have most of the graft controlled.

"If you see a clerk stealing from your employer, isn't it your duty to tell him? Wouldn't you report it if you saw a man putting his hand into another man's pocket on the street? Don't you owe that much to the man who pays your wages or salary?"—Kansas City Star.

The Power of Suggestion.

It was the reserve force stored up in the years of conquest and the habit of triumphing in whatever they undertook that gave such power to the Washingtons, the Lincolns, the Gladstones and the Disraelis, says Orison Sweet Marden in Success Magazine. It is the reserve power which we feel back of the words and between the lines of a powerful book; not what is actually in the printed words that impress us most. We are not so much affected by what an orator like Webster actually says as we are by what he suggests; the latent power, the mighty reserve force that we feel he might put forth were the emergency great enough.

Yours is the only hobby that is not foolish.

ESCAPE FROM SUBMERGED SUBMARINE.

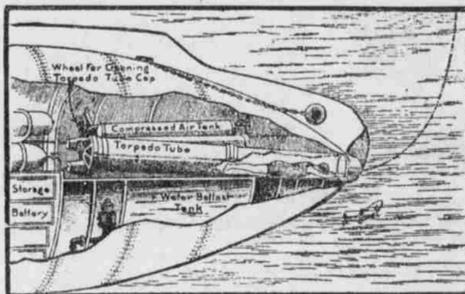


DIAGRAM EXPLAINING A DANGEROUS TEST.

WHILE there are many to question the value of the submarine as an engine of war and many to hold the opposite view, there are very few with sufficient hardihood to deny that the type is dangerous for those who man them, whatever they may be to an enemy. The very nature of their mission makes them heir to more different kinds of danger than any other craft that floats—or sinks. Those who believe in them have asserted that they are immune from many of the ordinary perils of the sea, that they have no boilers to burst, no masts to carry, no rigging to be strained, no sails to split, and no concern about stormy weather, as they can plunge beneath the surface when seas run high.

Ensign Kenneth Whiting, at present in command of the submarine Porpoise, now stationed at Manila, a few weeks ago took his vessel out into the bay, and, with a small boat in attendance, undertook an experiment that has made him famous.

The young ensign had conceived the idea that a man could make his way out from a submarine by way of the torpedo tube. A torpedo is the only weapon that a submarine carries, and as the boat must discharge the missile while submerged it follows that there must necessarily be some appliance for ejecting the missile and closing the orifice immediately after discharge.

The little that is known of Ensign Whiting's exploit is contained in the official report which the commander of the submarine flotilla recently forwarded to the Navy Department at Washington, and which the department promulgated in circular form, to be read on the quarterdeck of every vessel in commission. It says:

"Ensign Whiting entered the torpedo tube of the Porpoise through the after door of the tube, the cap of the forward door being closed. He then grasped the strong back of the crossbar of the cap and ordered the after door closed. As soon as the after door was closed the gunner's mate stationed at the cap engine opened the cap. The cap in opening forward and up hauled Ensign Whiting clear of the tube, so as to enable him to use his arms to come to the surface and to prevent his being shoved back into the tube by rushing water. The whole operation consumed about seventy-five seconds."

This same Porpoise came perilously near drowning her entire crew a few years ago. The vessel was maneuvering around Newport when she suddenly showed a disposition to seek the bottom. She quickly found it, and came to rest on the seabed. Overhead was a hundred feet of water. Too much water had been taken in as ballast and something had gone wrong with the automatic valve which should have controlled the rush. Luckily a hand pump was found, and, working for their lives in the fast circulating air, the crew managed to force out enough water from the ballast tanks to bring the submarine to the surface.

Be Prepared.

A great many people prefer to slide along the line of least resistance, to get along just as easily as they can, to paying the price in preparation for something better, says Orison Sweet Marden in Success Magazine. They are not willing to prepare themselves for a wider, larger place. They know that their education is deficient, that they lack special training; and they know that they could manage, somehow, to repair their deficiencies, but they lack the energy to do so. They prefer to slide along in an easy-going way, with the least trouble possible to themselves.

How many wrecks, how many incomplete and wretched lives we see everywhere because people did not think it worth while to prepare for much of a career! They thought they would get just a little education to help them along; just enough for practical use. They did not think it worth while to dig down deep and lay broad founda-

tions. They did not see life as a whole.

The reason why the lives of so many people are mean and stingy and joyless is because they put so little into them, they make such a meager preparation in education, in culture, in training, in thinking. Their harvest is small because they sow so little and such inferior seed.

If the youth expects a rich, golden harvest, he must prepare the soil, he must do some good sowing in the seed-time.

You cannot take out of your life life what you have not put into it, any more than you can draw out of a bank what you have not deposited.

A Sensitive Patient.

Dr. Emdee—Feet go to sleep? That shows your circulation is bad. Editor—That's all you quacks know. I suppose if my corns ached that would show that advertising patronage was falling off.