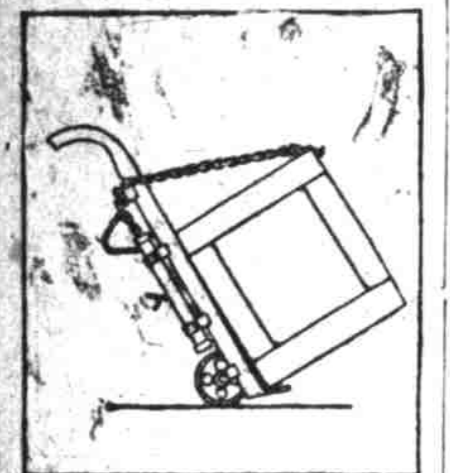


SCIENCE AND INVENTION

NOVEL HAND-TRUCK.

Among the ingenious devices recently patented is the novel attachment for hand trucks shown in the illustration below.



PULLS CASE ONTO TRUCK.

is pulled upon the truck. The chain moves in and out of a holder containing compressed air.

NEW RESCUE APPARATUS.

Many a drowning may be averted as the result of a simple yet effective life-saving apparatus invented by a Massachusetts man.



AIDS HIM IN THROWING.

merely a rope with a wooden handle attached to it, but it is the wooden handle that makes an effective rescuing device from what was otherwise a hap-hazard affair.

RUNNERS FOR GO-CARTS.

An ordinary folding go-cart, which is practically useless on pavements and roads covered with snow,



GO-CART WITH RUNNERS.

and rest axes. Instead of plodding along with the wheels cutting deep into the snow, the runners render travel easy and enjoyable.

MINERS' ELECTRICAL LAMP.

The old-fashioned oil lamp still being used by miners seems very antiquated when compared with the electrical lamp.

slightly in excess of the lamp, the

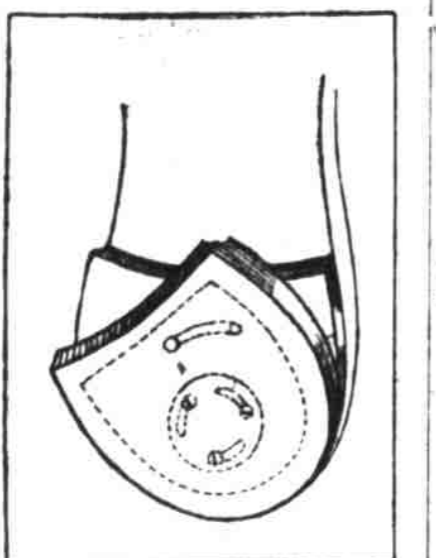


ELECTRIC LAMP IN CAP.

greater cost being the initial expenditure for the apparatus.

NO MORE RUNDOWN HEELS.

Police-men, actors and other pedestrians should drink a toast to a man in Australia, for he has come forward with a device that will lengthen the life of a shoe many moons.

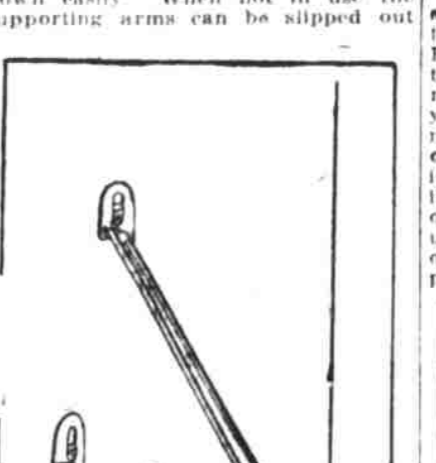


SAVES PEDESTRIANS MONEY.

throws the foot to one side and brings a strain on a part of the shoe not prepared for it.

A NOVEL BRACKET.

To those who have to make the most of every inch of space in home or office, the bracket devised by a New York man will appeal strongly.



FOLDS AGAINST WALL.

of place and the bracket folded against wall or door. A board can be placed across the top if needed.

A BOON TO ARTISTS.

Something new and decidedly convenient in the way of artists' outfits is the very complete work rest of holder, designed by a Massachusetts man.

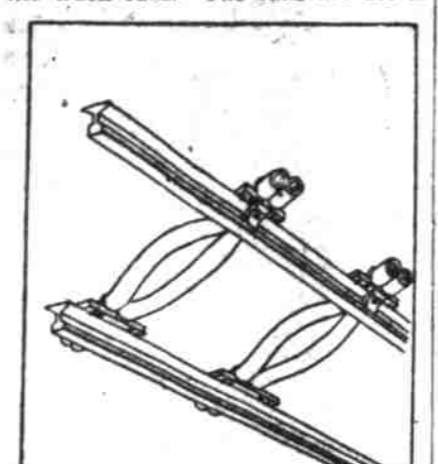


HANDY FOR COPY WORK.

contains an easel and drawers to hold the colors, brushes and palette. The whole folds into a small space and can be carried handily.

METAL RAILWAY TIE.

Metal railway ties are used extensively in Germany, and numerous experiments with them have been made in this country.



RAILS ARE SET IN GROOVES.

grooves and held firmly in place by holding devices. The advantages of these metal ties over the wooden ones are several.

THE TOWEL BAR'S CAPACITY.

The metal towel bar, which is to be seen in every properly furnished bath room, is a popular piece of furnishing.

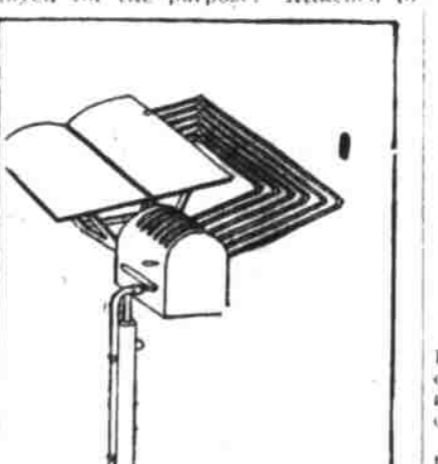


HOLDS DOUBLE ROW OF TOWELS.

use. Up to very recently it has consisted of a straight bar of metal or glass, held at a convenient height above the tub by supports secured in the wall.

MUSIC LEAF TURNER.

Among recent patented devices is an ingenious apparatus for turning the leaves of music, designed by a Pennsylvania man.



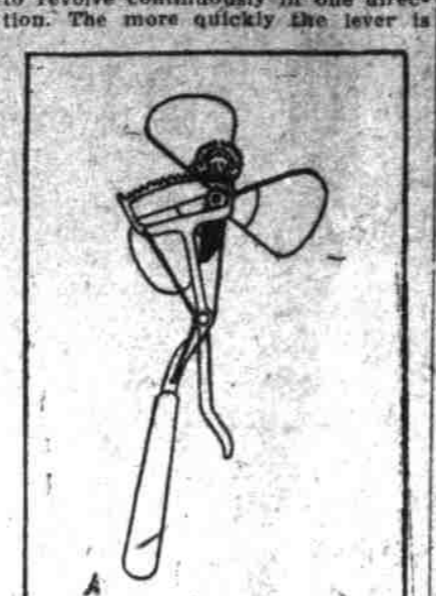
PRESSING BULB TURNS MUSIC.

the frame is a receptacle containing the operating mechanism. Extending from the receptacle are six or more rods, which are bent at right angles and end in fingers.

AUTOMATIC FAN.

During the hot summer season everybody resorts to the fan to afford temporary relief, yet few people realize that the exertion necessary to manipulate a fan, especially a very large one, will cause the perspiration to flow more readily than if the fan were omitted.

ation of the lever causes the paddles to revolve continuously in one direction. The more quickly the lever is

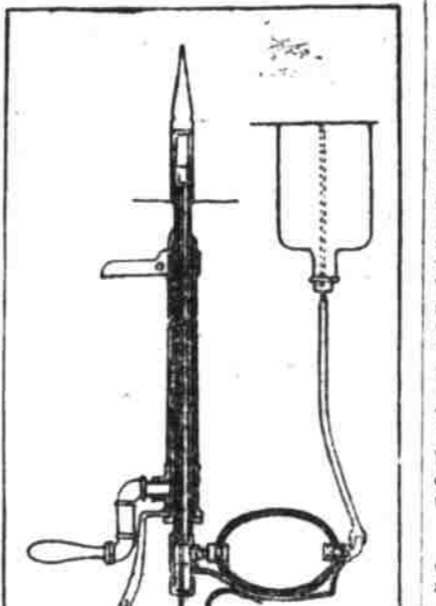


OPERATED BY FINGER.

operated the more rapidly the paddles revolve, the current of air being thus readily controlled.

WEED KILLER.

How to get rid of dandelions and similar undesirable weeds is a problem hard to solve to the man who is anxious to have a well-kept lawn.



INJECTS POISON INTO PLANT.

the plants. The point is pushed into the earth by means of the foot, and a lever released, injecting the liquid into the roots of the plant.

LOADED HANDLE TO HAMMER.

Carpenters have a bad habit of losing their nail punch. Being small, it is very readily mislaid, and, naturally, can never be found when wanted.

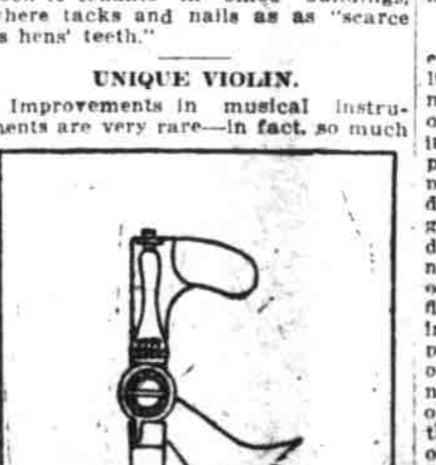


NAIL PUNCH IN HANDLE.

later has a plate at the end which clamps over the top of the opening and prevents the nail punch falling out.

UNIQUE VIOLIN.

Improvements in musical instruments are very rare—in fact, so much so that the violin is one of the few instruments that have remained practically unchanged since their invention.



NOVEL VIOLIN.

as to be at once noticeable. The latest is shown in the illustration below, invented by a Wisconsin man.

low, invented by a Wisconsin man. This instrument is in many respects like the ordinary violin, having strings, tuning pegs, etc., and is played with a bow.

SCIENCE NOTES.

The business of the Chicago freight subway has now reached a point where the financial loss, occasioned by the withdrawal of the government contract for the carriage of mail matter, has been overcome.

Dry farming is being liberally encouraged by some of the Western States, including Colorado and others possessing a great amount of what is called "semi-arid" land.

Experiments conducted abroad have demonstrated that balloons traveling at a height of from 500 to 2,000 yards could be hit only once out of six shots, while they are absolutely safe at a height of 3,000 yards.

The Baku-Batoum pipe line has been in operation for about a year, and as far as the mechanical operation of the line is concerned it is a great success.

The National Museum of the United States has recently acquired a collection of models representing over 100 different fruits of Haiti.

The population of Canada is now about 6,500,000. The average height of the Laplander is less than five feet.

The Interstate Railway Commission has begun a vigorous campaign with the view of cutting down the great death list which is rolled up every year by the railroads of this country.

produced in Nova Scotia, the remainder being imported from Great Britain. The rivets were all made in Dartmouth, N. S., and the rope for rigging all came from the same town.

A government expert has figured out that by the year 1955 the United States will be using more than 2,000,000 tons of coal a year.

An excellent demonstration of the resistance of a concrete structure to severe shock took place recently in Indianapolis, Ind., where two acetylene tanks on the roof of such a structure exploded.

A large grab-bucket of the clam-shell type, having a capacity of seven and a half cubic yards, was recently installed on the pier at the mouth of the Delaware River.

The problem of taking care of the "peak of the load" is a matter which has interested electric power station men for some time.

An entirely new design in the construction of electric lamps has been recently brought out, the novel feature of which is the entire absence, so far as the eye is concerned, of all wires.

PROGRESS OF THE DAY.

Venezuela has eight-ounce beetles. The French Congo has a pigeon postal service. The population of Canada is now about 6,500,000.

Four Miles of a spider's thread would weigh one grain. The best time for exercise is about two hours after a meal.

The first steel ship built in Nova Scotia is now under construction at New Glasgow, which was once a very active wooden ship building centre.

with 1,000,000 in the previous fiscal year.

An acre of cotton land in Egypt yields four times as much as one in this country.

In no country has the ready-made clothing trade developed as in the United States.

In China more freight is transported by the wheelbarrow than by any other method.

The oldest national flag in the world is that of Denmark, which has been in use since the 1219.

There are but seven establishments in this country with the facilities for casting bronze statuary.

An elephant's burden is from 1,800 to 2,500 pounds, and that of a horse from 200 to 250 pounds.

According to the latest figures, the anthracite coal of Pennsylvania will last but 100 years, and the bituminous 400 years.

The first English regatta took place on the Thames, between London Bridge and Millbank, on Friday, June 23rd, 1775.

The record of shipbuilding on the Clyde in the first six months of the year is the smallest for a like period since 1882.

The clock at St. Chad's Shrewsbury, has a record pendulum, its length being 22 feet and the weight of the ball 200 pounds.

The Church of England bishopric of Mackenzie river, in British North America, is five times as large as the United Kingdom.

The Canadian government is expending great sums of money in new railroad construction, in improvements of waterways, in industrial bounties, subsidies to steamships and in various other ways to develop the country.

The production of mica was to the value of \$22,111, in the United States. The imported mica was worth \$35,259. The large and increasing consumption of mica is attributed to its greater use in electrical work.