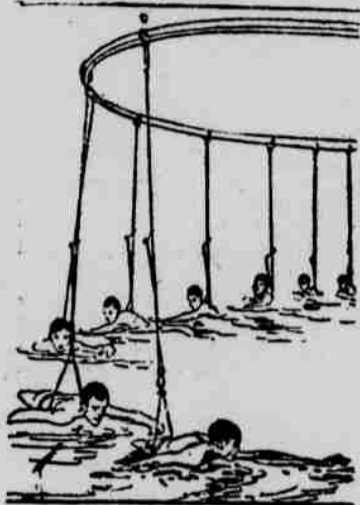


Marvels of Everyday Science

Competent Scientists Apply Their Skill to Problems of Agriculture, Housekeeping, Schools, Business and Governmental Activities.

A NEW SYSTEM of teaching boys and girls how to swim, instituted in certain Cincinnati schools equipped with bathing pools, is thus described by the Scientific American: An apparatus is employed consisting of an oval track secured to the ceiling over the pool. A dozen trolleys run on the track, and from each depends a rope

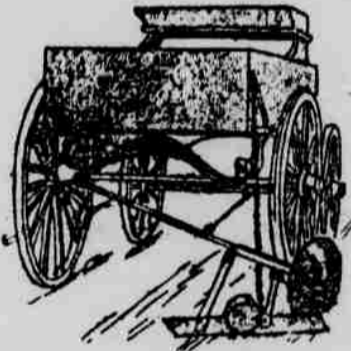


with a belt attached. Twelve pupils fasten the belts around their waists and the swimming lesson is on.

They go through the motions of "sailor fashion" and the "Australian crawl" as per the direction of the swimming instructor, who keeps watch from around the edge of the pool. They cannot sink, so the only thing remaining for them to do is to swim. This "water merry-go-round" has proved so successful that others like it are to be installed in schools where a bathing pool is a part of the equipment.

Road-Making Device.

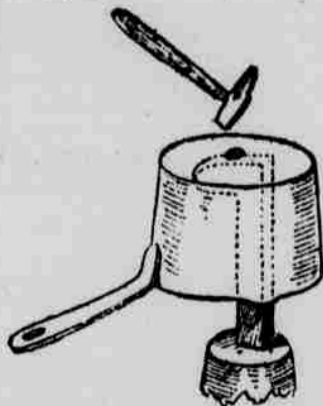
This invention, patented by Hugh G. Taylor of Buhl, Idaho, is simple in construction. It is a drag constructed of a piece of sheet metal four feet long, four inches wide by a quarter of an inch thick. It is attached by means of rods to the axle of a wagon or buggy, and drags immediately behind the wheel, smoothing the track and inclining loose dirt toward the center of the roadbed.



At the outer end of the drag is a disk which serves to cut down the sides of the track. Taylor has one of these drags attached to his mountain hack and it fills all holes, leaving the road smooth after the passing of the vehicle.

How to Mend a Hole.

It is easy to repair holes in pots and pans without the aid of a tinsmith. Make the hole round by inserting the point of a knife and twisting it. Place the pot or pan upon any firm, flat piece of metal, such as an anvil, a bar of iron



or an inverted flatiron, so that the hole is immediately over and touching the iron. In the middle of the hole place a shot about the size of the hole. Any piece of lead will serve if shot is not handy. A few sharp blows with a ham-

mer will flatten the lead and spread it out, filling the hole tightly and overlapping enough to hold it in place. A few strokes with a file and a rub with sandpaper completes the operation. The repair is permanent.

Mail Boxes Indicate Activity.

A German statistician has figured out that the number of collection boxes used by the postal authorities of each nation may serve as an indication of commercial activity. According to his information the nations rank commercially as follows: Germany, with 155,766 boxes for collection of mail; the United States, with 144,640; France, 79,724; British India, 75,083; United Kingdom, 71,986; Japan, 67,694; Austria-Hungary, 59,503; Italy, 39,767; Russia, 31,714. Other countries range from Switzerland with 13,472 to Persia with 17 and Abyssinia with only 6.

Searchlight Makes Ships Visible.

That the war color of naval vessels was selected because of its invisibility by day rather than by night, is the statement recently made by a naval officer, and tests seem to show that a vessel painted in this color, while difficult to see in daylight, is easily picked up and made visible by a searchlight at night. In one case a vessel painted in the war color was detected at a distance of 17,000 yards under the searchlight. There seems to be an insuperable difficulty in connection with this. For night work alone black is believed to be the best color, but this is a color too easily distinguished in daylight to be considered.

Traffic Telephone in Germany.

An electric street railway in Frankfurt-on-the-Main has recently supplied its lines with a portable telephone to enable the conductors or motormen to report troubles directly to the main office. The telephone is of ordinary construction, but the connection has novel features. A long pole, equipped with uninsulated hooks, is carried on the car, and when connection is desired the pole is taken out and hung on the telephone wires at the side of the track. The battery case and phone is so constructed that it may be easily carried during conversation, straps be provided for suspending the apparatus over the shoulder.

Mahogany to Imitate Walnut.

A case of wood staining that has attracted considerable attention was that of staining mahogany to represent walnut. This seemingly purposeless use of one valuable wood to imitate another came about from the fact that a walnut finish was wanted for a room at a time when walnut of the exact size and kind was not available. Owing to the similarity in grain and texture in the two woods the imitation might deceive even an expert.

Gyroscopic Automobile.

A new gyroscopic apparatus for balancing two-wheeled vehicles, recently brought out by a European inventor, has reached such a stage of development that it is now being promoted commercially in England for use both on motorail cars and two-wheeled automobiles. In this apparatus the precessional power of the gyroscope is employed for maintaining the balance of the vehicle in the same manner that it is employed in stabilizing a ship, but with a mechanism that is remarkable for its simplicity in comparison with the precession engine and other controlling apparatus ordinarily used with an active gyroscope.

Machine Records Steps in Walking.

The mechanics of the muscular effort used in walking, in golfing, or in playing other games may be recorded with exactness by means of a new device to which the inventor has given the name "kinograph." It consists of a system of levers connected with a recording pencil in such a way that a step upon a movable platform is registered on a strip of paper, which is propelled by clockwork. The difference of the step in walking and in running is marked, and the swing of a golf player makes distinctive impressions.

Health and Sanitation

BY A PHYSICIAN.

WE ARE passing through the annual round-up in many households, and in some parts of the country it is all over with and peace is drawing near.

It is true that the women of the household still call the men down if they walk in without thoroughly cleaning their shoes or if a coat or hat is carelessly left where it should not be.

It is also true that mother is still nursing a lame back and aching muscles, but she is so glad to know that it is over and everything clean and in order that she is comparatively happy.

Now, let me tell you something about housecleaning.

There now, never mind. I know I am a man and am not supposed to look at such things from the woman's viewpoint, but I am just egotistical enough to say that I know better than some of you, and I will also say that what I know about the matter I learned from a most excellent housekeeper, who never found it necessary to do what most women call "spring housecleaning."

Why? Well, in the first place she found that in most homes the process was followed by colds, sore throats, child ailments and a great amount of physical suffering on her own part as well as great inconvenience to the entire household.

How did she avoid it?

By simply keeping clean all the time. In the first place she found that the greatest trial was to take up, clean and relay the carpets, so she took up every carpet in the house and made them into rugs.

Then she painted and varnished all the floors, and after that she got a vacuum cleaner. A little work daily and a thorough use of the vacuum cleaner once a week has from that time on kept her house in just as perfect condition all the time as it was formerly after the spring housecleaning.

THESE are some ways to kill flies. Carbolic acid may be used as follows: Heat a shovel or any similar article and drop thereon 20 drops of carbolic acid. The vapor kills the flies in a room.

A cheap and reliable fly poison is bichromate of potash in solution. Dissolve one dram (one teaspoonful) in two ounces of water, and add a little sugar. Put some of the solution in shallow dishes, and distribute about the house.

Traps, nets, swatters and liquid poisons are among the best things to use in killing flies. Also a solution of formalin or formaldehyde in water is effective. A spoonful of this liquid put into a quarter of a pint of water and exposed in the room, will be enough to kill all the flies.

To quickly clear the room where there are many flies, burn pyrethrum powder in the room. This stupefies the flies when they may be swept up and burned or fed to the birds.

MOUTH breathing is the cause of many undesirable things. It is said to lead to adenoids and other throat troubles, also to chest ailments. At the same time one should remember that mouth breathing is sometimes a symptom of adenoids. The back of the nose being blocked by these, the child cannot inhale air in sufficient quantity through its nostrils.

When you notice that a child keeps its mouth continually open and cannot breathe comfortably through the nose you should at once consult a surgeon.

Eating with the lips unclosed is a very bad habit. It may not perhaps affect the health, but it may affect the child's future socially and affect it very seriously. People fight very shy of those whose table manners are distinctly unpleasant. Correct this habit when noticed.

DO YOU know:

That a bag of hot sand often relieves neuralgia.

That warm boracic acid solution will remove dandruff?

That a little soda water will relieve sick headache caused by indigestion?

That a cupful of strong coffee will remove the odor of onions from the breath?

That well ventilated bedrooms will prevent morning headaches and lassitude?

That a cupful of hot water before meals will sometimes relieve nausea and dyspepsia?

That one in a faint should be laid flat on the back, with the head lower than the rest of the body if possible, the clothes loosened, cold water applied to the face; and otherwise let alone?

That the best time to bathe is just before going to bed, as any danger of taking cold is thus avoided and the complexion is improved by keeping warm for several hours after leaving the bath?

Angora goats have been used with profit to keep fire lines clear of inflammable vegetation on national forests in California.

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