

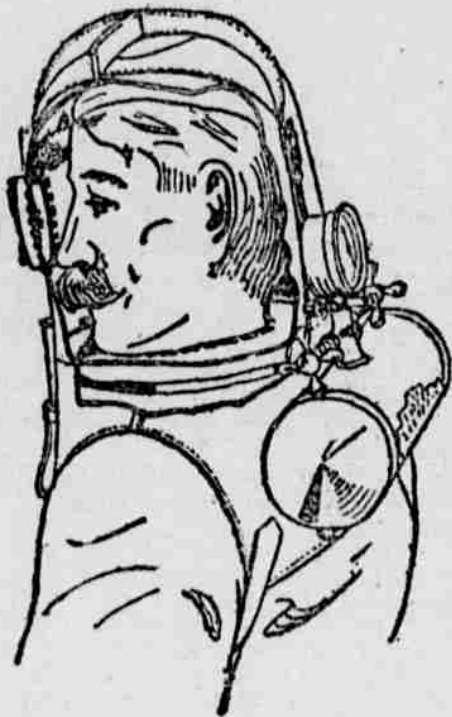
SCIENCE and INVENTION

The Finsen Light Cure.

United States Consul Frazier of Copenhagen, Denmark, reports that in the Finsen Medical Light Institute, now a state sanitarium, 1,367 cases had been treated up to May, 1903, by the Finsen rays. Of these most were lupus vulgaris, and in about 1,000 cases the best results had been attained, so that "in most cases one may count definitely upon a cure," to use the official language. The doctors at the institute are extremely conservative and never promise to effect a cure; but the records show that in a majority of the cases where sufferers have been encouraged by being admitted as patients cures have been effected. In the one case of the American patients where the physicians have not yet determined whether they can give relief, it appears the patient is suffering from a rather deep-seated cancer, but the Finsen rays do not cure any but the most superficial cancers.

Protects From Gases.

One of the greatest dangers with which the coal miner has to contend is the generation of deadly gas in the chamber in which he is at work. His lantern is so made as to guard against an explosion of this gas and even to indicate its proportion in the atmosphere, but the miner himself does not take the same precaution to prevent inhalation of the gas, relying on his ability to run out of danger. Often he is overcome in his flight and then the companions who



Supplies Oxygen to the Wearer.

have escaped return to search for him and carry him to safety before it is too late to resuscitate him. This work is hampered by the presence of the deadly gas in the mine and often a man's fellows not only fail in his rescue, but lose their own lives.

There has recently been introduced an apparatus which makes it possible for a man to go safely through a mine charged with deadly gas and come out without feeling any effects of the fumes. As here pictured, it consists of an air-tight hood to fit over the wearer's head and shoulders, with a compressed air chamber and automatic feeding arrangement attached to the hood. The air for breathing is discharged gradually into the hood to replace the air which has been breathed. The wearer of this apparatus can spend several hours, if necessary, in the presence of gas which would kill a man in a few minutes were it permitted to enter his lungs. The invention may also be utilized to enter smoke-filled rooms, affording protection to both the lungs and the eyes.

More or Less.

Biggs—Puffkins regards himself as the one man in a thousand.

Diggs—Is that all? I thought he regarded himself as the other 999.

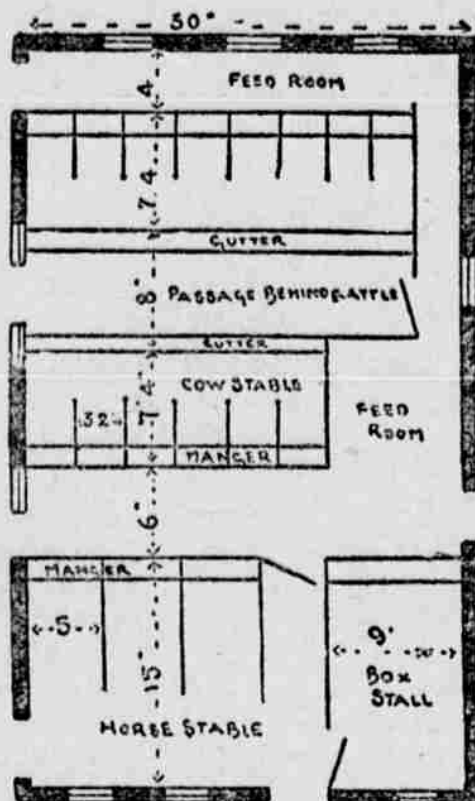
FLOOR PLAN OF BARN.

Roomy and Comfortable and Can Be Constructed Cheaply.

J. J. F.—Please publish a floor plan of a barn 30 by 50 feet, containing three single horse stalls, one box stall, feed room, 10 by 12 feet, and stalls for about 20 head of cattle. 2. A stone cellar with 2-foot walls admits frost. How would it answer to stud it up inside and line it with matched lumber?

Ans.—The accompanying plan should suit J. J. F. The upper floor would have a 16-foot mow over the horse stable, a 12-foot drive floor and a 22-foot mow over the cattle. The basement contains 3 single horse stalls, and box stalls, 14 single cattle stalls, and feed rooms. The writer built just such a barn 36 by 48 feet in 1897, the carpenter work of which cost \$110.

2.—If there were a four-inch brick wall built on the inside of the cellar



Floor Plan of Stock Barn 30 by 50 Feet, with a three or four-inch hollow space between the stone and brick, it would make the cellar very much warmer, and would be far better than one lined up with lumber. If the top were ceiled over with matched lumber and covered with sawdust it would keep the cellar from freezing from the top. The only drawback to putting in a wood ceiling is that it decays very quickly. The writer has arched a good many outside cellars with a four-inch row of brick giving the arch a two-inch rise to every foot in width, three-quarter-inch rods were placed through the cellar at the spring of the arch six feet apart to keep it from spreading. This was covered with earth or sawdust; the brick never rots and makes a clean pure cellar.

Manure for Potatoes.

W. D.—1. What is the best manure to force potatoes? 2. Will new land not yet broken produce good potatoes? 3. Would lime help to warm the soil? Is there any fertility in it?

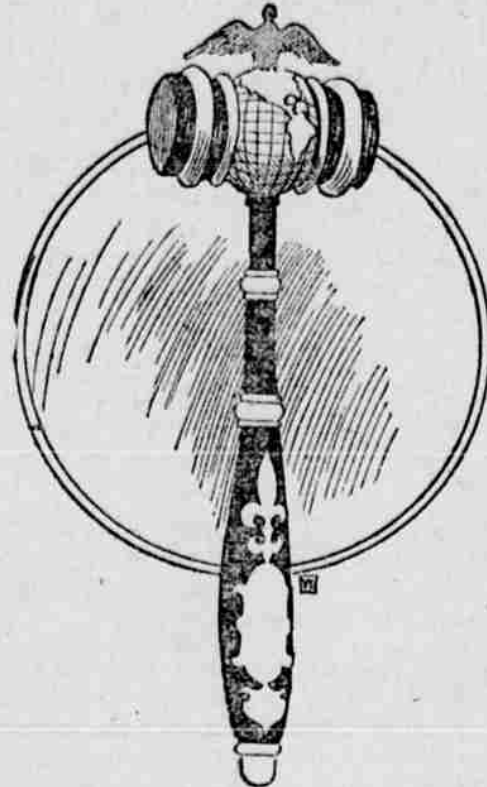
Well rotted yard manure with an admixture of poultry manure is considered the best fertilizer for potatoes. An application of ashes is also good. 2. New land is well adapted to the growing of potatoes. A common method of preparing new ground is to plow it, harrow it down well and plant the potatoes with a hoe. 3. If the land is heavy and cold and application of lime would warm and mellow it. Lime is not a fertilizer. It is necessary for land to contain a good stock of plant food before lime can be of any benefit; its function is to liberate and turn over to the young plants that plant food contained in the manure or fertilizer. It is used also for correction of acidity in the soil. Beyond these mechanical functions lime is not considered a fertilizer in a strict sense of the word.

It is estimated that during the last five years telephones have been put into nearly half a million rural homes.

GAVEL A BEAUTIFUL ONE.

Work of Art Used in Opening St. Louis Fair.

The gavel used by D. R. Francis in giving formal notice to the nations that the exposition was opened was worthy of the occasion. Its material was made from an aged oak tree that for more than a century towered on the summit of Ant hill, a conspicuous landmark to aborigines, whose graves it sheltered until they were unearthed to make room for the



crowning feature of the exposition picture.

It is embellished with the American eagle in silver, with pinions spread. A map of the two hemispheres encircles the head, handsomely inlaid and engraved, significant of the united efforts of the old and new worlds in the latest achievement in expositions. Inlaid in the handle are the shields of the United States and the fleur de lis of France, the parties to the Louisiana purchase. Six heavy silver rings encircle the head of the gavel, and the tip of the handle is finished with an acorn from the oak tree out of which the gavel was carved.

Once Ruled Over Many.



Figure of a king, in relief, recently found in Amran-Ibn-Ali, Babylon.

Black Cats' Island.

There is an island in Puget Sound, not more than half a mile across, which is so thickly populated with cats that they may be seen covering the rocks on a sunny day, from the riggings of passing vessels.

The cats number many thousands, and the strangest thing is that they are all black. Every evening a boat load of fishermen land on the island and lay out a seine a quarter of a mile long. They pull it in with never less than a ton of fish, but next morning these fish are gone. The cats devour them all.

These cats have been placed here by men who are supplying the market with women's muffs. Once a year there is a great round-up, and several thousand pussies lose their lives.

REVIVE AN OLD FASHION.

London Women Have Taken to the Wearing of Monocles.

The eighteenth century beau was accustomed to view life through a monocle mounted on a long handle of gold or pinchbeck.

The handle terminated in a ring by which the bauble was affectingly dangled on the end of the little finger when not in use. This quaint fashion is being revived by the fair lady of to-day, and to meet it London jewelers have designed some very exquisite single glass lorgnettes, with long handles of gold, enamel, tortoiseshell, or scroll work in diamonds.

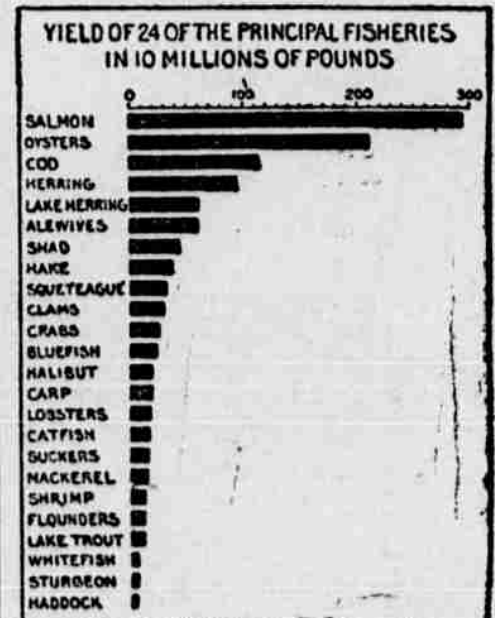
One specimen, carried out entirely in brilliants, represents a slender quiver full of arrows, and on the heads of the arrows rests the glass. A Louis Seize design of the finest workmanship in dark royal blue enamel is studded with diamonds and has wreaths of the finest leaves in gold surrounding it. The handles of these lorgnettes are about four inches long, and terminate in a small ring composed of little diamonds or enamel, and through this the chain by which they are worn around the neck is hung. An ordinary muff chain strung at intervals with a precious stone is frequently worn, but the correct thing is a narrow ribbon, with here and there a diminutive clasp in brilliants.



Awake for Twenty-five Years.

There is a man in London who has not slept a wink for a quarter of a century, and during that time has become completely weaned from the desire. When about forty-five years old this patient had an attack of malaria chills and took a dose of fifty-two grains of quinine. Since that day he has never slept for the quinine produced such a singing in his ears that sleep has been out of the question. The noise changes in character from day to day. Sometimes it is like the roar of a cataract, again it is like the sound of sawing and at another time it resembles the hissing of steam from the exhaust of an engine. Doctors have made futile efforts to aid him.—New York Herald.

Showing Yield of Fish.



The accompanying diagram from the National Geographic Magazine needs little explanation. It shows the yield of the different varieties of fish.

Hunt for Buried Cash.

A quiet hunt is being made by members of a family who reside on a farm on the Alfred road, in Biddeford, Me., for \$300 in silver and bills which the father of the family buried somewhere in the ground about the farm while in a state of insanity.