

**A FEW RECENT INVENTIONS.**

The variety of inventions shown in the annexed engraving indicate that American inventive genius is not confined to any particular line of inventions. The devices represented are all simple, and of a class that would be called small inventions, a class that pay better, as a rule, than the larger inventions.

The mouse trap shown in Fig. 1 is the invention of Mr. Caleb H. Hollingshead, of Washington, N. J. It consists in providing a jar or bottle with a tube that fits the neck, and has converging wires on the inner end, which permit the animal to enter, but will not allow it to escape.

Fig. 2 represents an improved stopper invented by Mr. Richard T. Ellifrit, of Platte City, Mo. It is intended for bottles and jars, and forms a scoop by which the contents of the jar may be handled or measured. The great advantage in the use of this stopper is that every jar will have its own stopper, and the contents of different jars cannot become mixed.

A novel sprinkler for sprinkling clothes, plants, tobacco, etc., shown in Fig. 3, is the invention of Mr. J. H. O'Connor, of Helena, Ark. It consists of a goblet-shaped metallic cup closed by a convex perforated plate or rose, and having

inventor prefers to make the tubular standard of paper, as it is sufficiently strong, and is very light and inexpensive.

The improved candlestick shown in Fig 8 is the invention of Henry Grom, of Newark, N. J. It is designed for candles of different sizes, and is arranged to hold them at any desired height. The candle is supported by four spring wires, which are bent outward at their upper ends, and project through a collar in the guide ring at the top. The wires are adjusted by moving the ring which surrounds them near the base, and the lower end of the candle is supported by a shifting plate, which slides upon the wires. A drip plate is adapted to the candle.

Mr. H. W. Taber, of Ann Arbor, Mich., has patented an improved automatic damper to be attached to the pipe, smoke stack, or chimney above the furnace or stove. It consists of a damper nicely balanced, so that an increase of draught beyond the prescribed limit will overcome the counterweight and draw air in through the damper. By sliding the counterweight the resistance of the damper to external pressure may be varied.

The improved currycomb and brush shown in Fig. 10 is the invention of Mr. John Gawthorpe, of Cleveland, O. It consists of a plate shaped like a horse brush, and having a

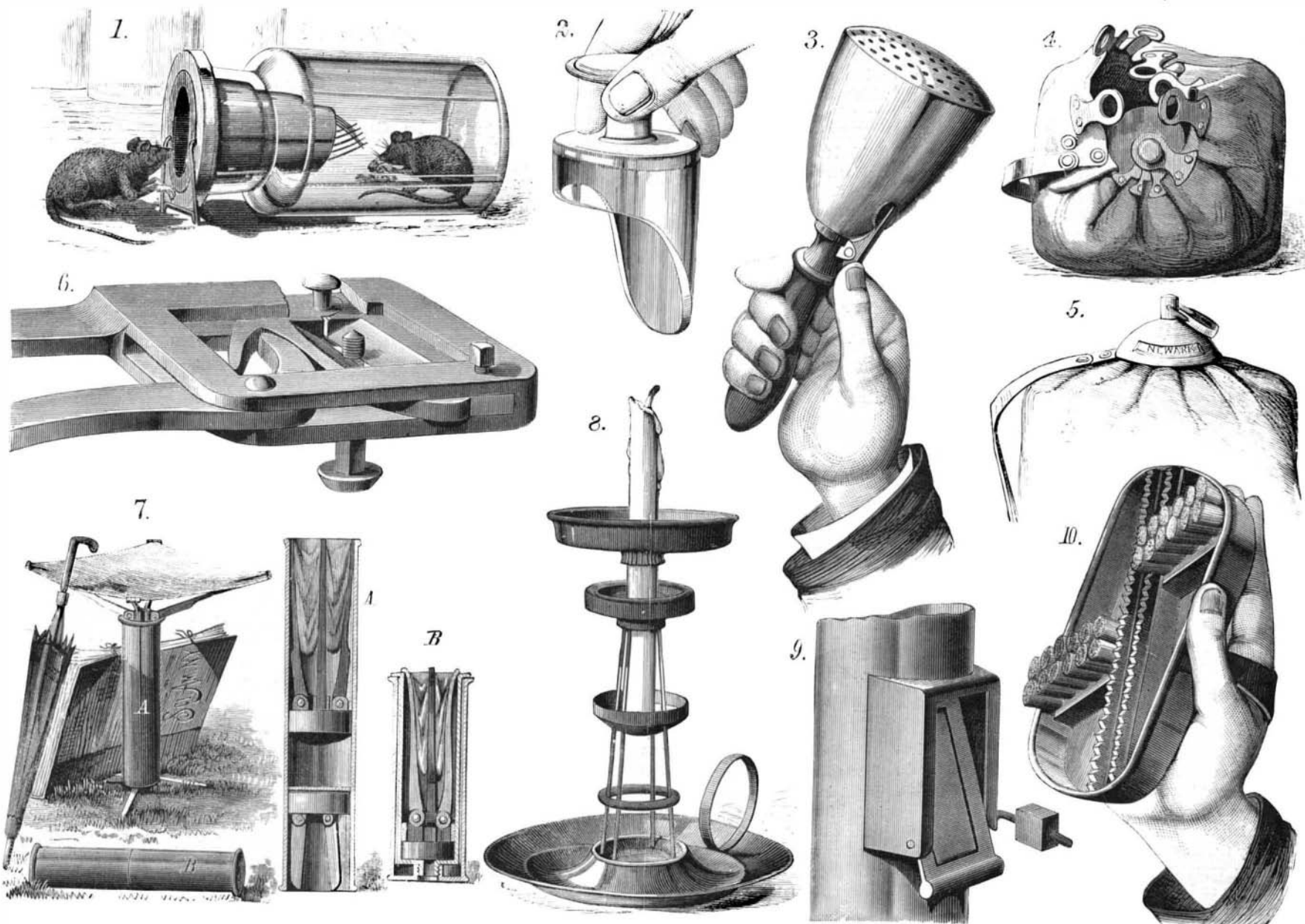
July, August, and September; also the revenue and the average fares. The following is a summary:

	Passengers.	Revenue.	Average Fares.
Third Avenue.....	6,936,924	\$513,854.05	7.41
Ninth Avenue.....	919,487	65,803.10	7.15
Sixth Avenue.....	4,156,545	327,305.45	7.88
Total.....	12,012,956	\$906,962.60	7.55

As the three months represented are those of least traffic—covering as they do the season when business is most quiet, and the largest number of our citizens are out of town—the evident increase of traffic for the year is enormous. Part of this increase is due no doubt to the extension of the roads, but vastly more to the largely augmented volume of general business.

**The Torpedo Catcher.**

A trial has been made on board the Bloodhound, gunboat, at Portsmouth, England, of a new means for clearing harbors of sunken mines and fixed torpedoes. At present, the method adopted is to destroy the engines by countermining, or by the hazardous process of "creeping." This is effected by boats being sent out to grapple for the cable connections, and then severing them by small charges of gun cotton.



**RECENTLY PATENTED NOVELTIES.**

a valve to permit of the escape of air as the cup is filled. After filling the air valve is closed, and the liquid is discharged in a fine spray by shaking the sprinkler.

An improved fastening for mail bags, patented by Messrs. H. S. Mertz and H. T. Worman, of Allentown, Pa., is shown in Figs. 4 and 5. It consists of a plate carrying a stud and attached to the bag at one side of the mouth, and a series of perforated plates, also attached to the bag at the sides of the mouth, and adapted to the stud. The bag is closed by placing all of the perforated plates over the stud and slipping a concave cap over all, securing it with a padlock, the hasp of which passes through an eye in the stud.

The bolt trimmer shown in Fig. 6 is the invention of Mr. William Butler, of Philadelphia, Pa. It is intended for trimming bolts close to the nuts, and it consists of a frame formed on the end of the fixed handles, and carrying one of the cutter blades, the other blade being pivoted in the frame and operated by a cam formed on the end of the movable handle.

Fig. 7 represents an improved camp stool invented by Mr. Elisha Waters, of Troy, N. Y. The seat is made of flexible material and attached to arms, which fold up and may be pushed down into the tubular standard, A, when the stool is not in use. When the stool is provided with legs they too may be folded and pushed into the tube. When no legs are used the tube may be made in two sections, and one half may be unscrewed and inserted in the other half, thus diminishing the bulk of the stool when it is not in use. The

projecting flange, to which are secured currying teeth and brushes arranged diagonally across the plate. With this device a horse may be brushed and curried at the same time, and the dirt and hair will be retained by the projecting flange.

**COST AND TRAFFIC OF THE NEW YORK ELEVATED RAILWAYS.**

From the testimony of Mr. W. R. Garrison, President of the Manhattan Elevated Railroad Company, and also of the Metropolitan, given before the Assembly Committee on Railways, October 15, it appears that the actual cost of the Metropolitan road was over \$800,000 a mile. The cars cost \$3,400 each, and the engines from \$5,000 to \$5,200. The road had 50 engines and 150 cars. Fifteen miles of road had been finished when it was leased to the Manhattan Company. Mr. José F. de Navarro, a director, said that the cost of the road would be 40 per cent greater now if it were to be built again. As much as \$100,000 had been expended in efforts to lessen the noise and get rid of smoke and cinders. The noise had been diminished a half by the experiments and by the wearing of the rails. He thought the road would cost \$1,000,000 a mile when everything was completed. Mr. Benjamin Brewster, a large stockholder in the New York Elevated Company, said that the cost of that road, including rolling stock, was \$700,000 a mile.

There was submitted to the Committee an official statement of the traffic on the three roads during the months of

This mode, however, is very slow. The new method of opening a free channel for the passage of ships, as tried in the Bloodhound, consists in running out a couple of booms, 30 feet in length, from the bows of the ship. Across the submerged ends is fixed a horizontal beam, 38 feet in length, having a zigzag arrangement of iron rods in the form of a W, the idea being that the open space of each V of the series, as it is pushed through the water, will inclose the torpedo fastenings or connections, and lead them to the point at the bottom, which is fitted with a scissor contrivance, the blades of which are worked by levers in connection with the capstan on board. The beam searcher has a sweep of 50 feet, and the mechanism is capable of cutting through the strongest electric cable. A net, which is supported from the whiskers of the bowsprit, receives the liberated torpedo, and prevents it exploding against the operating craft. The trial proved a great success.

**The Locomotive.**

The control which a good locomotive engineer has over his engine is something remarkable. A long time ago some of the depot attaches noticed that the 1:15 train from the South seemed to stop daily at the self-same spot when coming to a standstill at the depot, and about two months ago a mark was made to designate the precise locality. Since that time the train has not varied six inches from the mark, and some of the friends of the engineer have presented him a bouquet in acknowledgment of his skill.—Springfield (Mass.) Union.