

the Napier won the final in 27 3-5 seconds, thus establishing a new American record for the distance in competition. Ross was second in 28 1-5, Stevens on a 90-horse-power Mercedes third, in the same time, and W. Wallace on a 90-horse-power Fiat fourth in 30 seconds.

The mile championship race for the Dewar trophy, run in three heats and a final, was won by Ross on his steam torpedo in 42 seconds. McDonald was second in 42 3-5 seconds. He also won the first heat in 41 3-5 seconds. Wallace won the second heat in 49 seconds, and Oldfield, on the 60-horse-power Peerless, the third in 49 3-5.

The only long-distance event that took place up to Saturday, January 28, was that for the Lozier trophy, a 50-mile race for American cars only. This race was run off on the 27th ultimo, and was won by Walter Christie with his novel 70-horse-power racer, on which the motor is placed transversely and forms the front axle. Christie had as competitors A. C. Webb on a 90-horse-power Pope-Toledo racer, which is entered in the next Gordon Bennett race, and Barney Oldfield on the 60-horse-power Peerless racer which holds so many track records. All three cars had breakdowns, and the race was virtually an obstacle race against time. Webb had trouble with his commutator, and dropped out at the end of 10 miles. Christie also had electrical troubles, which delayed him some 20 minutes. Oldfield turned at the 10-mile post instead of at the 12½-mile one, and, after returning to the starting point with a rear tire off, he started anew, but later abandoned the race. Christie was the only one to finish. He ran the last 25 miles through spray, dashing up from the rising tide, in 26 minutes, 48 2-5 seconds, and his time

NEW SYSTEM OF EGG TRANSPORTATION.

BY GEORGE J. JONES.

The egg men of this country have recently had called to their attention a new method of shipping and handling eggs, which has already been adopted to a considerable extent, and the use of which is becoming more and more general. Quite a large factory is maintained at Scranton, Pa., in the manufacture of the devices known as "Zinkets," which are the foundation of the new system. These zinkets are tray-like constructions of metal made by mechanical methods, each one of which holds one dozen eggs, and it is designed that the eggs shall be placed in these carriers at the time of their gathering on the farm, and in them they shall remain until such time as it is proposed to prepare them for consumption. When the zinket is empty, it is laid aside and returned to the dealer when a supply of fresh eggs is being secured.

This system is said to have a number of advantages over the method of packing the eggs in horizontal layers with the aid of pasteboard fillers, as is done at present. In the first place, the zinket offers a most convenient means for carrying and handling the eggs through all of the various processes through which they must pass from the farmer to the consumer. Secondly, the transportation of the contents of these packages is effected more safely than by the old methods, and the packages are smaller than those of corresponding capacity in use at present.

It has been said that the carrier is the basis of the new system. This is cut out of a roll of sheet metal, preferably steel, in an oblong shape, with twelve round holes placed regularly in the center. These shapes are

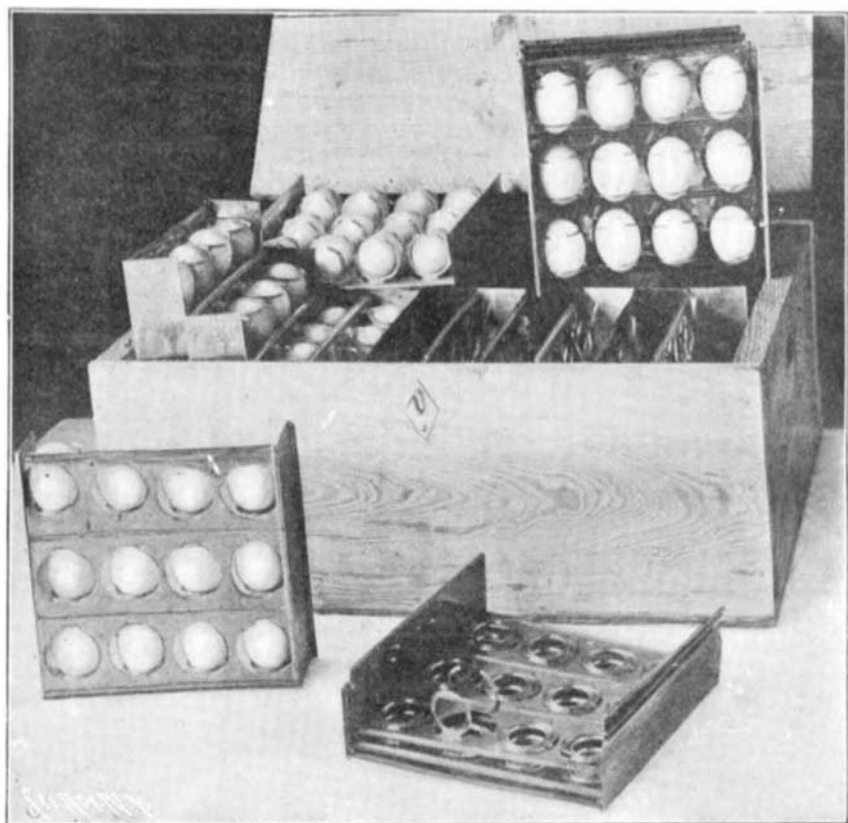
their way back to him. This enables the careful housewife to know just where her eggs came from. She will soon become familiar with the names of the farmers supplying her dealer, and she will reject the packages of any of those in which she has at any time found unworthy goods.

These devices have been already extensively used by fancy farmers, who supply what is known as "morning eggs." For infants and invalids it is often desired to have eggs that have been laid on the day of delivery. Here these carriers are the hasty messengers from the poulterer to the pantry. In order to give patrons further assurance of the quality of the contents, a strip label is pasted across each row of eggs in such a manner that it is impossible to remove one of the eggs without destroying the label.

After the package has been delivered to the house it is placed in the refrigerator, still in the zinkets, and in this shape it takes up much less room than the usual bowl. If it is desired to boil the eggs in numbers, as for a large family or restaurant, the entire arrangement is placed in the boiling water, and thus they are all cooked to exactly the same degree, a thing which has not been possible before without the use of some expensive device of a special nature.

Astronomical News.

A telegram has been received at the Harvard College Observatory from Prof. Kreutz, at Kiel Observatory, stating that a planet of the thirteenth magnitude or fr. was discovered by Wolf at Heidelberg, January 22, and that it was observed by him January 23d. 2735, Greenwich mean time in R. A. 1h. 31m. 59s., and



A NEW SYSTEM OF TRANSPORTING EGGS.

for the entire distance, including stops, was 1 hour, 11 minutes, 22 2-5 seconds. A full description of the Christie racer and of the McMurry timing apparatus used at Ormond was published in the Automobile Number of this journal one week ago.

A special 10-mile match race between a 40-horse-power Decauville and a 40-horse-power Bollée was the only other race of interest on the 27th ultimo. This was won by the former machine, driven by Guy Vaughn, in 9:20 1-5, with the other machine only 5 3-5 seconds behind at the finish. The races were all run with difficulty because of the tide receding but little, and giving but a very narrow stretch of beach on which to run them.

An interesting sub-aqueous engineering feat has been achieved in the successful laying of a submerged water main at a depth of 86 feet across the channel in Cork Harbor, Ireland, separating Queenstown from Haulbowline. The work was attended with several difficulties, among which the great depth of water and the irregular nature of the bed of the harbor, which consists of jagged limestone rock, were the most important, and at first it was deemed by many experts to be impossible. The submerged main measures about 2,000 feet in length, and consists of specially cast pipes of 6 inches internal diameter.

Of the iron ores mined in the United States in 1903 it is estimated that 86.6 per cent were red hematites; 8.8 per cent brown hematites; 4.5 per cent magnetites; 0.1 per cent carbonates. The line between the red and brown hematites is, however, not clearly defined.

then electroplated with zinc, as this is the most cleanly and desirable for the device. By subsequent passages through special machinery, these holes are enlarged by cutting at the top and bottom. The strips thus formed are afterward bent out from the metal body, and form clips over and under the hole, for the purpose of grasping the egg. The ends of the metal are then bent so as to form something of a tray, the ends being grooved to enable one of these devices to fit tightly in another. Thus, when packed, they are slipped into suitable boxes, vertically instead of horizontally. When in transit in this manner, the spring-like qualities of the clip consume all ordinary shock, and prevent the eggs from being broken. A very severe blow is required to dislodge the eggs from their resting places.

By this vertical arrangement of the trays, it is easily possible to examine and even count the contents of the box in a few minutes. For candling, the eggs may be examined in their places, and by a simple apparatus invented for the purpose, the entire dozen of eggs may be carefully examined almost at a single glance. This is done without disturbing them from their places between the clips.

The safety of carriage is a feature which appeals to the dealer, and another important factor is the economy of space shown by the zinket system, for the carriers pack very closely. In shipping or storage they actually occupy one hundred cubic inches less space per thirty dozen eggs than the pasteboard filler system. A feature which appeals to the consumer very strongly is the means afforded for the identification of goods. On each of these carriers the name and address of the owner must be stamped, in order that they shall find

Dec. 36m. 13s. Daily motion in R. A. + 1m. 32s. and in Dec. +0° 9m. It is supposed to be Perrine's satellite of Jupiter.

NOTE.—In a letter dated January 13, 1905, Prof. Campbell writes: "Unfortunately, we have had only one or two breaks in the clouds since the announcement was made, but the two short exposures show the satellite where it was expected to be."

A telegram has been received at the Harvard College Observatory from Prof. W. W. Campbell at Lick Observatory, stating that the sixth satellite of Jupiter was observed by Perrine January 17d. 702 G. M. T. Its position angle with reference to Jupiter was 266 deg. and its distance 36m. Wolf's asteroid has no connection with the sixth satellite.

The following story is published in Machinery: A circus train was pulling out of Spokane, Wash., a few weeks ago when suddenly the injector "broke" and persistently refused to take up water. After working with it a few minutes the engineer ordered an examination made of the tank; it was found nearly empty, although filled at the water crane but a short time before. No explanation of this mystifying condition was apparent until water in numerous streams was seen running from the elephant car next to the tender, and then the cause was found. "Jumbo" had amused himself by reaching his trunk through the open end of his car into the manhole of the tender and sucking up the water, with which he had deluged the other animals in the car. They looked like "drowned rats," and needless to say had enjoyed their involuntary baths no more than the trainmen had the delay.