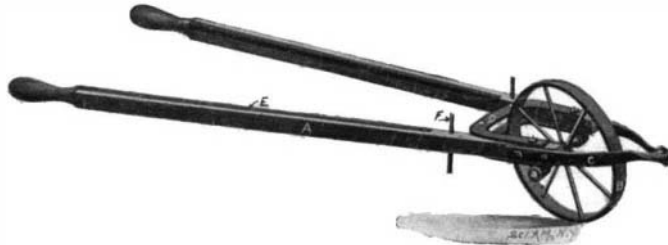


**ADJUSTABLE WHEELBARROW.**

The wheelbarrow which is shown in the accompanying illustration is so constructed that it may be readily adjusted to fit or hold articles of varying sizes. The handles are adapted to be moved toward or from each other, but when released they will be automatically thrown outward, or separated, under tension of a pair of spring straps.

The engraving shows the wheelbarrow handles, A, partly drawn together. The handles are preferably made of wood faced with iron strips, E. At their forward ends the handles are pivoted between two yoke-pieces, D. These yoke-pieces are connected together by bolts which pass through sleeves, the latter serving to properly space the yoke-pieces apart, and prevent binding on the handles. Pivot bolts pass through the yoke pieces and the handles, and at their lower ends are provided with eyes which form bearings for the axle of the wheel, B. The spring-yielding straps, C, extend forward from the handles and are joined together at their forward ends. Stop pins, F, are located on the handles at suitable places to prevent a barrel or other article from rolling or sliding against the wheel. These pins extend in both directions, as shown, for the wheelbarrow is designed to be turned either side up, since by turning it in the reverse position to that illustrated, the handles will be brought closer the ground, making the loading of heavy boxes or barrels much easier. The wheelbarrow can be made at a comparatively small cost, and when not in use it may be folded closely together, and therefore will require but little space for storage as it can be stood up in a corner. A patent for this invention has recently been granted to Messrs. W. A. House and W. F. Hosken, of Covington, Ky.

releasing the gates, D, which thereupon fall into the dotted position shown, complete the electric circuit, and ring the alarm bell. The shot at the same time is precipitated onto the tinfoil disk, C. This is easily ruptured, and the shot fills up the cup, B. The acid thereupon flows over into the alkali, which fills the body of the flask, A. Chemical action immediately takes place, and a gas is generated. Finding no escape through the neck of the bottle, the gas forces the liquid in the inner cylinder downward, and causes the liquid in the annular space between the outer and inner cylinders to rise. The pressure is sufficient to rupture the tinfoil covering of the perforations, P, and the liquid is sprayed out, thus extinguishing the fire. If the inner cylinder be removed, no raising of

**ADJUSTABLE WHEELBARROW.**

the liquid takes place, but the gas itself passes out of the perforations, when sufficient pressure has been attained, and chokes out the fire. The extinguisher may be located in the room which is to be protected at a point near the ceiling, where it will be comparatively inaccessible. Now, if a fire breaks out, the heat generated will cause the alarm to be automatically rung and the liquid sprayed out or a gas formed, which will extinguish the fire.

**Baldwin's Failure.**

Mr. Evelyn B. Baldwin has explained his failure to reach the Pole as follows:

"Tromso, Norway, Thursday.—The public has been deceived by false reports regarding the expedition. Nearly every member has been faithful, and my comrades ought to and must have due credit for their work in establishing large depots at Camp Ziegler during March, April and May. Sometimes they had to traverse the same route ten times. Fifty sleighs were destroyed in this work. Open sea near the depot at Teplitz Bay prevented us from reaching the Duke of Abruzzi's headquarters, and poor ice conditions in 1901 prevented us from establishing depots north of 80 deg. 22 min. In this connection the death of half of our dogs necessitated the postponement of going to the Pole. Nothing favored returning by way of Greenland.

"I believe the record of being the 'farthest north' could have been broken, but it would have exhausted our supplies and destroyed the hope of finally reaching the Pole.

"Sailing Master Johannssen's demands to become the 'America's' captain were untenable and unbearable. His threat December 15 to take possession of the ship as captain, and deal with the crew in accordance with his own will, might have spoiled the expedition's plan if enforced. The ice pilot, as well as the first mate, who had long experience in polar ice, were entitled to recognition. Johannssen's refusal to obey the ice pilot's orders, and his declared unwillingness to take the advice of my representatives on the sleigh expedition, together with other well-founded reasons stated to the American consul now here, caused his discharge and the promotion of three of his countrymen, who all followed me in the sleigh expedition and obeyed with pleasure the orders given by myself, my representatives and the ice pilot.

"(Signed) BALDWIN."

**Moving Vans for Transoceanic Use.**

Vans for moving household furniture from one city to another are much more common in Germany and other parts of Europe than in the United States. These vans, which are owned by companies with agents in different cities, are loaded with furniture and other household goods at residences, hauled on trucks to the railroad, and loaded on flat cars for their destination. Here, they are received by the company's local agents and are unloaded at the house where the furniture is to go. When possible, the van is reloaded in the same vicinity and sent back to the place of starting. Thus, one may see in Italy or France furniture vans from Berlin or Dresden.

The saving in packing, the avoidance of extra drayage, and of the danger of breakage have made the system popular, especially in Germany. The vans in use there vary somewhat in size, many of them being almost as large as an American box car.

Recently, efforts have been made to extend the system so as to provide for the shipment of household goods across the ocean. A New York storage and van company has established connections in various parts of Europe and proposes to send vans abroad

when satisfactory arrangements can be made. If a man living in New York, for example, wishes to remove to a city of Germany, he will be furnished with one or more vans, in which his household goods are placed. The van is transferred to the ship, and, on landing at the foreign port, is again transferred to the car or river boat and carried to its destination.

The agent of the New York company, who recently made a tour of the Continent, claims that in the short trial made, the use of the vans has proved highly satisfactory, both in cost and convenience.

The vans employed by this company are 16 feet long by 8 feet wide and about 6 feet high. They are solidly built of wood, specially selected for protection against dampness, and are covered with thin sheet steel. They are readily conveyed onto and from ships and railway cars by the usual hoisting apparatus.

As a new phase of international commerce the matter will be watched with interest.

M. Perrier has patented a special apparatus for obtaining by means of petroleum, of the weight of 650 grammes per liter, a gas of an illuminating power much superior to that of coal gas. This apparatus consists of a bellows of plaited leather, whose design is to cause the air to pass between into the three saturators, each provided with a level; and in order to keep account of the quantity of petroleum which they contain, they have on the inside different plates for shifting. The air arriving by the pressure produced by the bellows traverses the first saturator, then the second, and finally the third, and then passes into a gasometer. By this means 2,600 liters of gas, or 2½ cubic meters per liter of petroleum should be obtained. We would suggest that petroleum of the weight of 650 grammes a liter is not really petroleum, but gasoline. We think the weight should read 850 grammes.

**A SHUTTER ATTACHMENT.**

A simple little device which will be found very useful in any house has been invented by Mr. G. J. Eppright, of Manor, Travis County, Tex. The device comprises a small spacer which may be inserted at will between the slats of a shutter to hold them open to the wind. Shutters as ordinarily made may be secured in two positions: The closed position, in which the slats are inclined at such an angle as to overlap each other and to exclude both light and air, or the opposite open position, in which the slats permit the light to pass downward diagonally into the room but interfere with the passage of a breeze. These two positions do not fulfil all requirements, for there are often times when one desires to exclude the sunlight without obstructing the circulation of the air. This may be done by the employment of Mr. Eppright's device, whereby the slats are locked in horizontal position so that the sunlight is practically excluded while no obstruction is offered to the air currents.

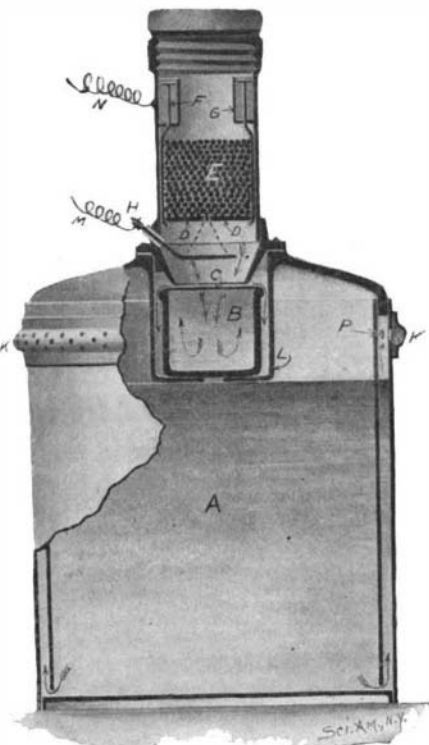
As clearly indicated in our illustration, the spacer consists of a wire bent to an approximate U-shape;

**SHUTTER ATTACHMENT.**

this spacer is pivotally mounted on the slat bar through the medium of a sleeve. When not in use the spacer may be swung out of engagement with the slats. It is evident that but a single spacer is required for each shutter, since the slats are all connected with the same slat bar, and the whole series will be held in horizontal position if any one of the slats is so secured.

**The "Kaiser Wilhelm's" New Record.**

On her last trip to New York, the "Kaiser Wilhelm der Grosse" broke her western record, making the trip in 5 days 15 hours and 20 minutes. The vessel has beaten that time on her eastern trip.

**AUTOMATIC CHEMICAL FIRE EXTINGUISHER.**

into this funnel is connected with one pole of an electric alarm, while the metallic neck of the flask is connected to the opposite pole. Upon either side of the neck are disposed the rods, F, slightly hooked at their lower ends to tentatively uphold two gates, D, on which a quantity of shot, E, is supported. In the neck are the receptacles, G, containing wax or any other readily fusible substance, in which the rods, F, are embedded. So long as the wax does not melt, the gates will be supported. When, however, the heat is great enough to melt the wax, the rods drop slightly,