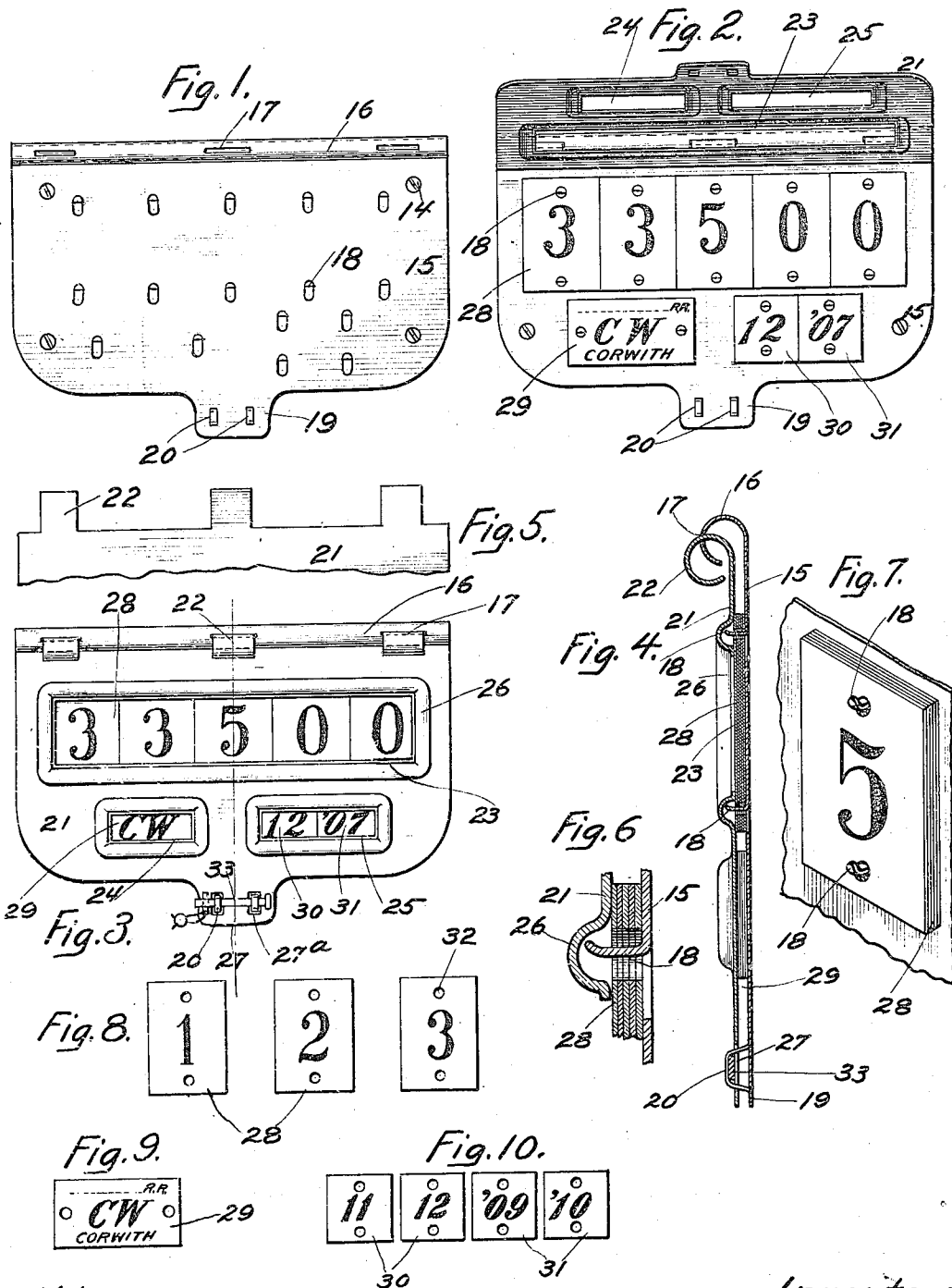


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 APPARATUS FOR INDICATING CAR WEIGHTS.
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UNITED STATES PATENT OFFICE.

FREDERICK C. MAEGLY, OF CHICAGO, ILLINOIS.

APPARATUS FOR INDICATING CAR-WEIGHTS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FREDERICK C. MAEGLY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Indicating Car-Weights, of which the following is a specification.

The object of my invention is to provide improved means for indicating the "tare" or "light weight" upon railroad freight cars.

In all ordinary cases the weight of railroad freight shipments in carload lots is ascertained by weighing the loaded car on railroad track scales, thus getting the gross weight of the car and its load, and then deducting the light weight of the car as indicated on the outside thereof. It has been customary to stencil the light weight upon the car at the time when it leaves the hands of the builders. If this weight were invariable, very little difficulty would arise in the method just described, of ascertaining the net weights of the freight shipments. However, from a variety of causes, the light weight of a freight car will change from time to time. In many cases this is due to the drying out of green lumber which was used in the construction of the car. In other cases repairs made on a freight car will change its light weight to a considerable extent. The changes are more often such as to decrease the light weight than to increase it, and it follows that in such cases there is a loss to the railroad company because the shipper pays for transportation of a less weight than that actually carried by the railroad. On the other hand, in those cases in which the light weight of the car increases beyond the stenciled indication, there is liable to be irritation on the part of the shipper, who is thus made to pay for more than is actually carried. If it were an easy matter to re-weigh freight cars at frequent intervals and re-stencil the light weights on them, these difficulties would be largely avoided. However, in order to re-stencil the light weight on a freight car, it is necessary to have a kit of paint, four colors being required on account of the varying colors of the freight cars of different railway lines. Also a set of stencils is necessary. This equipment must be carried to the car or the car must be switched to a

place where the equipment is kept on hand. The methods of appliance are laborious and in railway services usually involve several departments and much costly detention to freight equipment. The congested and crowded condition of many railroad terminals and freight yards makes it difficult and well nigh impracticable to give proper attention to the very important detail of keeping accurate light weights stenciled upon railway freight cars, and where such service does receive special attention, many delays result. In many cases shippers provide track scales of their own and employ special sworn weighmasters to reweigh cars when empty in order to arrive at the correct weight of the merchandise shipped. The light weights so ascertained are, however, not preserved, for the simple reason that no convenient means are in existence for marking the cars with such weights. The principal difficulties in the way of re-stenciling cars with the proper tares arises from (1) the labor and delay necessary to locate the cars whose marked tares are in need of correction; (2) the switching required to sort out such individual cars and take them to and from the scale; and (3) the labor and delay required to transmit from the scale the information as to car initials, car number, correct light weight and date of ascertaining same to the department whose duty it is to efface with paint the old light weight marks and restencil the new light weight and other data. In this connection it is to be noted that painters insist on waiting after first effacing the old light weight, so as to give the paint time to dry. Then they paint the corrected light weight over the old one. This delay in waiting for the paint to dry is bad in itself and is a frequent cause of inaccuracy.

By my invention I provide means whereby the new light weight ascertained by re-weighing the car may be applied to the car at the time it is re-weighed without incurring any appreciable delay. Moreover, this application of the corrected weight to the car may be made by the person who actually does the re-weighing or under his immediate supervision, so that there shall be no division of responsibility. Still further, the apparatus is such that the car is made to show the circumstances of the application of the indicated light weight thereon, and

any alteration by unauthorized persons is impossible without leaving evidence of tampering.

In a general way, my invention consists of a set of cards with numerals and other characters printed thereon, a holder for these cards, the holder to be permanently attached to the side of a freight car, the cards being adapted to be arranged in the holder so that the numerals and other characters thereon shall indicate the weight of the car and the circumstances under which that weight was ascertained, the holder being adapted to be sealed by authorized persons only, thus preventing any re-arrangement of the cards by an unauthorized person without its being manifest.

Referring to the drawings—Figure 1 is an elevation of the under member of the holder. Fig. 2 is a view similar to Fig. 1, showing the cards in place, and also showing the outer member of the holder opened up above the inner member. Fig. 3 is an elevation, showing the holder with the cards therein and with the outer member closed down and sealed over the inner member. Fig. 4 is a vertical transverse section of the holder in closed position. Figs. 5, 6 and 7 show details of construction. Figs. 8, 9 and 10 show various kinds of cards that may be employed.

The holder comprises two members 15 and 21 hinged together. The member 15 is attached to the car wall by means of the screws 14. It consists of a sheet metal plate stamped by means of a die so as to have the features shown. The top edge 16 has three long slots 17 and is rolled over, as indicated by the reference numeral 16, so as to bring the said slots to the front. Hooks 18 are formed in the sheet of metal by punching it up from the back side. The purpose of these will be explained presently. On the lower edge there is an extension 19 which is slitted and has two loops or eyes 20 struck up between pairs of slits. The other or outer member 21 has tongues or projections 22 along its upper edge, which correspond to the slots 17. These are rolled over through the said slots, as clearly shown in Fig. 4. The member 21 has large openings 23, 24 and 25, the purpose of which will be explained presently. Around each of said openings the metal is struck up to form a channel 26 on the under side. The channels about the several openings are adapted to overlie all the hooks 18 on the under member 15. At the lower edge there is an extension 27 corresponding to the aforesaid extension 19 on the lower member. This extension 27 has holes 27^a corresponding to the loops 20 so that the said loops will project through the holes when the members are closed together.

Cards 28—as illustrated in Fig. 8—are

provided each having different digits printed on its two faces and having perforations 32 which correspond to the hooks 18, so that these cards may be hung on those hooks, as indicated in Figs. 2 and 7. The cards are arranged so that there shall be five cards on each pair of hooks, with the ten digits from 0 to 9 on the ten faces of the five cards. Other cards 29, having blank spaces on which may be written an abbreviation or symbol to indicate the station at which the weighing is done, are provided. As illustrated in the drawings, the name of the station is "Corwith", for which the abbreviation is "CW." These cards may preferably also have the name of the railway system under whose authority the weight is indicated on the car, and they may also have directions as to the proper use of the device. Still other cards having date symbols thereon are provided, as indicated by the reference numerals 30 and 31. There should be six cards 30, having printed on their twelve faces the numerals from 1 to 12 to represent the various months of the year, and there should be an equal number of cards 31 indicating the year, as "09", "10", etc. The outermost faces of the outer numeral cards 28 will show through the large opening 23 and will give the light weight of the car. The outer card 29 indicating the station at which this light weight was ascertained will show through the opening 24, and the outer cards 30 and 31 giving the date on which said weight was ascertained will show through the opening 25. Thus, as seen in Fig. 3, the device indicates that the car to which it is attached has a light weight of 33,500 pounds; that this weight was ascertained at Corwith station in the month of December, in the year 1907. The seal 33 through the loops 20 will show that the holder was closed down on the cards 28, 29, 30 and 31 by an authorized person. It will preferably show that the holder was sealed up by a person authorized to do so in connection with the Corwith weighing station. If by reason of the remoteness of the date exhibited through the holder, or for any other reason whatever, it is desired to verify the light weight of the car, any authorized person can break the seal 33 and re-arrange the cards within the holder in accordance with the light weight as ascertained by him. Such a person would preferably have a number of properly designated seals 33. He would ordinarily be one of the regularly authorized weighmasters and immediately upon determining the true weight of the car he should arrange the appropriate cards in the holder so that their outermost faces would indicate the light weight as ascertained by him. He should also write his station abbreviation on one of the blank cards 29 and should arrange the

cards 30 and 31 to indicate the date on which he ascertains the weight. After properly arranging these cards in the holder, he should seal it up with one of his
5 seals.

I desire to call attention to some advantageous features of the particular embodiment of my invention disclosed in the accompanying drawings. It is to be noted
10 that the holder consists of only two pieces, each being adapted to be made by means of a die and press. The hinge members 16 and 22 are so constructed that little or no water can get between the members 15 and
15 21. This will be apparent from Fig. 4. Water which may fall on the rolled over portion 16 will run down the back side of the member 15 or over on the front, and instead of getting back through the hole 17
20 it will run off the tongues 22. It is to be noted that the holder cannot be removed from the car without breaking the seal 33, because when the holder is sealed down the heads of the screws 14 are covered up by
25 the outer member 21. The numbers on the cards are more legible than the usual stenciled weights on cars, and this constitutes another advantage of my invention.

It will be seen that I have provided apparatus by means of which the light weight
30 of a freight car can be indicated thereon by the person who ascertains that light weight at the very time when he performs the act of weighing. Thus, division of responsibility is avoided and it becomes possible to indicate the correct light weights on
35 cars with maximum accuracy and minimum of expense, delay and inconvenience.

Every station agent who has track scales
40 and all authorized weighmasters at private shippers' plants should of course be provided with appropriate seals. Some or all of these parties should also have extra cards such as illustrated in Figs. 7, 8 and 9.
45 Whenever any suspicion arises that the light weight indicated on the car is not reliable, the actual light weight can be ascertained and then by means of my invention the true light weight may be recorded on the
50 car at any point where there are track scales. Not only is the latest light weight recorded but it can be seen at a glance, who

is the authority for this, and what was the date on which it was ascertained. Under the present practice a great many shippers
55 always weigh their cars light, entirely disregarding the light weights stenciled on the cars. Under my system the confidence in indicated light weights will be increased, and, moreover, an arrangement can be made with
60 shippers' weighmasters by which they shall be sworn and shall have authority to indicate, by means of my apparatus, the light weights ascertained by them. The whole apparatus is self contained, the only necessary
65 auxiliary parts being the seals, of which a supply should be allotted to weighmasters.

What I claim is:

1. In a device of the class described, an
70 inner plate adapted to be attached to a freight car, an outer plate having openings therethrough, channels about said openings on the inner face of the outer plate, projections from the outer face of the inner
75 plate, said channels being adapted to overlie said projections when the plates are closed together, and weight indicating cards having perforations adapted to register with
80 said projections.

2. In a device of the class described, a
80 plate adapted to be attached to a freight car having its top edge rolled outwardly, and having perforations through said top edge, and an overlying plate having projecting
85 tongues along its top edge, said tongues being passed through said perforations and bent down to form closed loops.

3. In a device of the class described, an
90 inner member, hooks projecting from the outer surface thereof, cards having holes adapted to register with said hooks, said cards being adapted to indicate the light weight of a freight car, and an outer plate
95 adapted to overlie said cards, said plate having recesses registering with the said hooks.

In testimony whereof, I have subscribed my name.

FREDERICK C. MAEGLY.

Witnesses:

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