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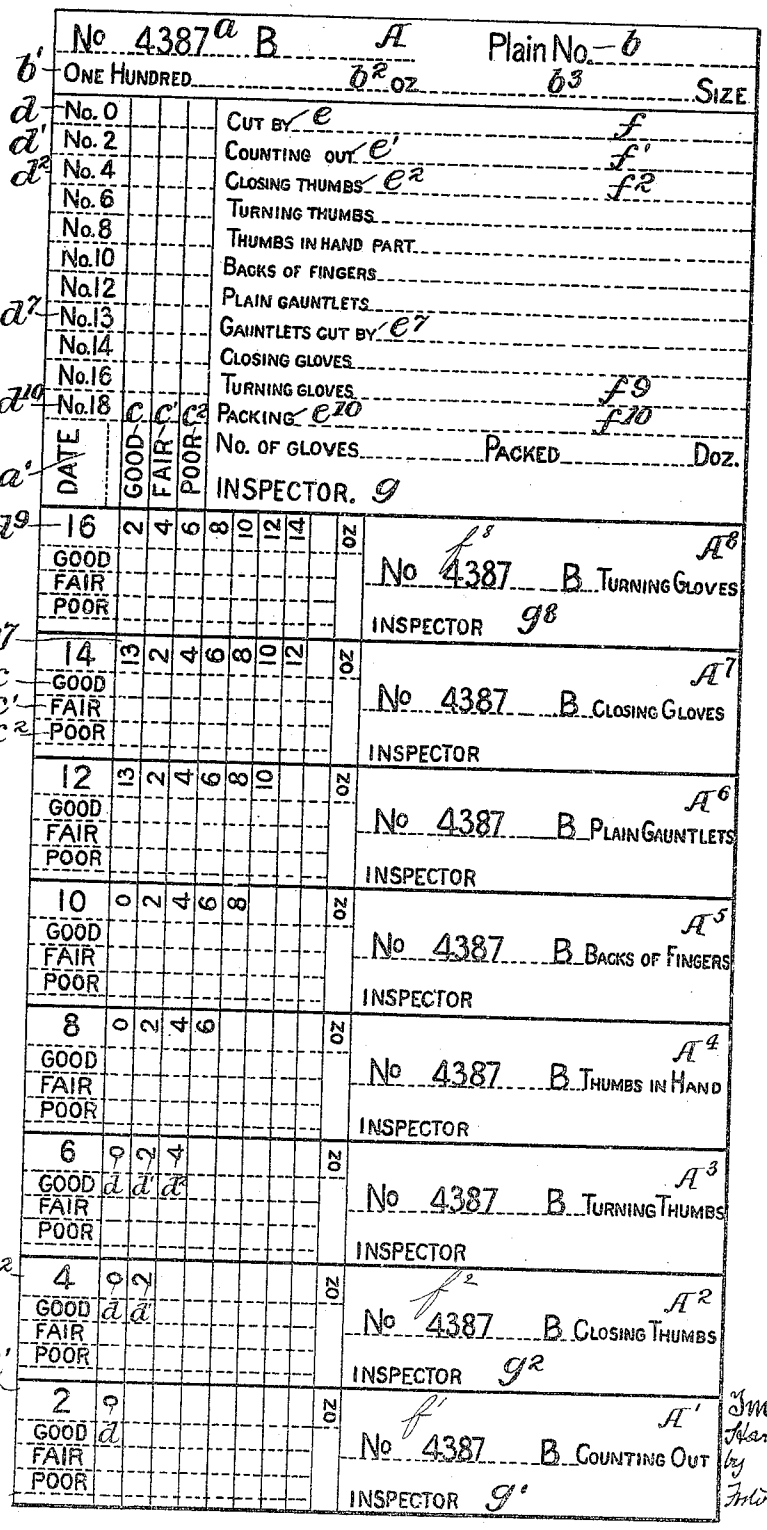
CARD RECORD FOR MANUFACTURING PURPOSES.

APPLICATION FILED JAN. 25, 1906.

945,897. Patented Jan. 11, 1910.



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Application filed January 25, 1906. Serial No. 297,900.

To all whom it may concern:

Be it known that I, HARRY ZIMMERMAN, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Card-Records for Manufacturing Purposes, of which the following is a specification.

My invention relates to card records more especially intended for use in connection with manufacturing purposes, and it has for its object to provide and improve card records of this character, and more especially to provide means for conveniently and accurately keeping not only a record of the goods themselves, but also of every act performed in connection with the making of the finished goods, the character of the work performed, by whom it was performed, and to so keep these records that each operator not only has to account for her own work, but also acts as an inspector for all operators handling the goods or articles before they come into her possession so that there is practically a reinspection of the goods at each step; and also to so keep these records as to enable the pay-roll to be made out quickly and accurately.

To these ends, my invention consists in a card record embodying the general features of construction and arrangement, and adapted to be used and manipulated in the manner substantially as hereinafter more particularly pointed out.

Referring to the accompanying drawing, there is illustrated a card record embodying the general features of my invention, sufficient to enable those skilled in the art to understand the same when taken in connection with the following description.

I have illustrated one embodiment of my invention adapted to be used in connection with the manufacture of gloves.

Each card comprises a card head or body A, and a number of attached coupons A', A^2, etc., in the specific embodiment shown there being eight of such coupons, the number and arrangement of said coupons however will vary in accordance with the number and character and other considerations relating to the various acts to be performed in connection with the manufacture of the particular product.

Each card body and its connected coupons is provided with a distinguishing mark which may vary, (in the present instance it being shown as a serial number) and a distinguishing letter a, the particular card illustrated being distinguished by the legend "No. 4387 B" placed on the card body and on each of the coupons thereof. The card body is preferably also provided with a date space a'. The card body is also provided with goods identifying marks, which will vary in accordance with the different kinds of goods and may specify more or less of the details of information in regard to the goods, and some of these goods identifying marks may also appear on the various coupons. I have used a number of goods identifying marks, comprising, for instance, a short title or class of goods b in the words "Plain No. ——," an indication of the number of parts of goods in the lot to be identified by the card record as indicated at b' in the words "One hundred", a space b^2 in which can be used the indication "Oz." for instance, indicating the weight of the goods, or in which may be placed any other indication of the character of the goods, as "Wadded", etc., also a space b^3 wherein may be placed some identifying marks as the word "Size", which may be preceded by the words "Small", "Medium", "Extra large", etc. It will be understood that these goods identifying marks will vary in character and number according to the work in connection with which the cards are used.

The body of the card and each coupon is provided with spaces for indicating the quality of the work in connection with the various steps or operations in making the completed article, and in the present instance, these indications of the quality of the work are found at c, c', c^2 in the words "Good", "Fair", "Poor", respectively on the body and coupons with spaces adjacent thereto to receive the proper indications. Of course, any other desired series of indications relating to the quality of the work can be used. The card body is also provided with a series of indicators of the class of work or order of steps or operations performed by the different operators, and in the present instance, these are indicated at d, d', d^2–d^{10}, and as "No. 0", "No. 2", "No. 4",–"No. 18", and of course these will vary in number and character according to the number and character of the steps or operations performed to indicate the various classes of the work done. These are shown

arranged in relation to the indicators of the quality of work so that the quality of the work of each particular class of work can be readily recorded and they are placed on the card body in a row at right angles to the row of indications of the quality of work. Each coupon bears one of these indicators of the class of work, as d', d^3, d^9, and these coupons are arranged in the reverse order so far as their indicators are concerned to the arrangement on the body of the card, that is to say, the coupon corresponding to the class of work performed by the first operator, in connection with whom it is desired to keep a separate record, is at the extreme end of the record and the others are arranged in the order of the operations. The card body is also provided with indicators of the description of work, or act, or step performed, and these correspond practically with the indicators of the class of work and are shown in the drawing at e, e',–e^{10} in the words "Cut by", "Counting out", "Packing", etc. Each of the coupons also bears one of these indicators of the description of work. The card body is also provided with a number of blank spaces f, f', f^2,–f^{10}, to receive the operator's signature in connection with each indication of the class of work and the description of work, and each coupon has a similar blank space f', f^2–f^3. In this particular example of applicant's invention there is no coupon bearing an indication of the quality or class of work indicated by d and e, by d^{10}, e^{10}, or by d^7, e^7, respectively. The reason for this is that it often happens that some particular class and description of work is done by some outside force of help, and may not figure in the general scheme of piece work for which the card record is more particularly adapted. For instance, the cutting operation d, e, may be done by one who is paid by the thousand. Again the cutting operation d^7, e^7, may be performed by some operator who may make a separate aggregate report of his work independent of this particular card record. Again, the packing operation d^{10}, e^{10} may be performed by an operator employed on a different kind of pay-roll or otherwise. Although it may be desirable to keep a record of these operations in connection with the other work of the other operators on the said body, it is not deemed necessary to provide coupons. It will thus be seen that the number of coupons may be the same or different from the number of indicators of the class and description of work, and of course, whether or not this is true in any particular case will depend upon the exigencies of that case and the particular character of the records desired to be kept in regard to the work.

The card body and each of the coupons attached thereto are preferably provided with a space as g, g', g^2–g^8, for the signature of an operator designated in the present instance by the title "Inspector".

Another important feature is that each coupon has a number of spaces or designations corresponding to the various classes or steps or operations of work performed by preceding operators, or before the goods or articles are turned over to an operator performing any particular step of the work, and this is an important feature in connection with the system of inspection originating with me whereby each operator performing her own particular class and description of work also acts as an inspector of the preceding classes and descriptions of work, and constitutes what may be termed a system of operators' inspection. Thus it will be seen that coupon No. 2 has in one of the blank spaces a designation d corresponding to the said designation on the head of the ticket and representing the act or description of work indicated by "No. 0" on the head of the ticket and the words "Cut by". This is the operation which precedes the operation of the particular operator doing the class of work designated as d', e', "Counting out", for instance. In coupon No. 12 the indicator d is suppressed, and in its place is inserted the indicator d^7 in the No. 13 referring to the description of work e^7 "Gauntlets cut by". This same indicator appears on coupon 14, but is suppressed in this particular instance on coupon 16. The reason for this is that it is assumed that a certain number of inspections of a particular class of work may be sufficient to guarantee that it is satisfactory, and after the class of work has been inspected a certain number of times, it is unnecessary to reinspect it.

It will be noticed that on the head of the ticket A, there is what may be termed a final coupon not intended to be separated therefrom having thereon the indication of the class and description of work, d^{10}, e^{10}, and the space f^{10} for the signature of the operator and other indications as the number of gloves, "Packed", "Dozen", etc. This, in the present instance, indicates the final step or class of work performed in connection with the goods until they are turned over to the final inspector or are ready to be put in stock. When this is done, the card record is supposed to be complete and the coupons have been utilized in the manner hereinafter described.

To more fully explain how my improved card record can be utilized to accomplish the results desired in keeping records and furnishing means for making out the pay-roll, etc., we will suppose that ticket No. 4387 B represents a lot of material to be made up into a certain style of gloves known, for instance, as "Plain", and these gloves are to be designated as "Stock No. ——". This lot is, for instance, to represent the

material for one hundred gloves and of certain definite kind of material as weight, indicated by "Oz." or other indicating marks b^2, and from this material gloves of a particular size and style as "Extra large", "Boys", or other character are to be made. When these one hundred blanks for making the particular class of goods indicated by the identifying marks b to b^3, for instance, is selected and given a number or card distinguishing mark, the card follows the blanks or goods and the articles through all the processes of manufacture up to and including the packing of the completed articles, and the various coupons are to be filled in in the manner designated and to be separated from the ticket in succession as the class of work indicated by the particular coupon is performed. These coupons are then immediately sent to the main office and thus any tampering with the record of the coupons is avoided. This record of each coupon must correspond with the similar record relating to that particular class and description of work on the body of the ticket.

Suppose now the blanks are in the hands of operator No. 2, whose duty is first to be sure that there are one hundred blanks in this particular package and to see that the character of the gloves is properly designated at the head of the ticket as to stock, number and size, etc., and that they are properly cut. If, for instance, this operator should find that instead of there being one hundred blanks there were ninety-nine good ones and one mutilated, the operator would put opposite the word "Good", "99" and opposite the word "Poor", "1", or if, for instance, there were only ninety-nine blanks all good, she might insert the number "99" opposite "Good" and note that there is one missing from the lot. Of course, it will be understood that the entry made will correspond to the actual facts and to the particular system employed in the factory as, for instance, it may be the duty of the operator when there is a deficiency in good blanks to secure the required number to make up the number in the lot so that there would be an even hundred throughout the different steps. After the operator has made this operator's inspection and performed her particular class and description of work, she fills in the coupon in accordance therewith, signing the same, and detaches it from the card body and turns the goods over to the inspector who signs the coupon at g' and while doing this the operator also signs the body of the card at the space f' corresponding to the indication of the operator's particular class and description of work. She then sends the coupon to the main office where the records are kept and all the coupons collected and examined when necessary, and where they may furnish a basis on which to pay the particular operator for the amount and character of the work performed. The inspector then turns the goods over to operator No. 4 who performs the next class of work, as "Closing thumbs", and in doing this, it is the duty of this operator not only to perform this particular operation, but also to inspect the work of the previous operators and, in this particular instance, this inspection consists practically in inspecting the blanks to see that they are properly cut and of the proper number, being the work performed by the operator No. 0 and by the operator No. 2. From this it will be seen that each operator not only has to account for her own work, but also acts as an operator's inspector for all the operators handling the goods or articles before they come into her possession so that there is practically a reinspection of the goods at each step by each operator aside from any regular act of inspection by the inspector, and the inspection of the operator in practice is really accomplished without delay and may be said to be mechanically accomplished while performing her particular class of work.

After each operator in turn has performed the particular class of work assigned and filled out the coupon and detached it and sent it to the office, the goods and the main ticket go to operator No. 18, for instance, where they are packed, and the final entry is made, the goods finally inspected, and turned over to the storage or selling department. The ticket goes to the office where it is assembled with the various coupons previously deposited. The tickets and coupons being assembled they are examined and the blanks indicating the quality of work c, c', c^2 on the body of the ticket are filled out and thus the record is complete, and this forms a basis for making up the pay-roll of each particular operator.

From the above, it will be seen that not only is there a complete record of all the work done by the different operators, but no changes can be made by any of the operators after the entry has once been made on the coupon and has been filed in the office. Furthermore, it will be seen that it provides for a most thorough inspection of the work not only by the inspector, but by the operators making what I have termed the operator's inspection, and the whole forms a most complete record in connection with manufacturing articles and a most satisfactory means of making out pay-rolls and settling any questions which may arise in connection with the materials or goods involved.

What I claim is,—

1. A card record comprising a body and a number of coupons, the body and each coupon being provided with the same dis-

tinguishing mark, the same goods identifying mark, and the same quality of work indications.

2. A card record comprising a body and a number of coupons, the body and each coupon having the same distinguishing mark, the same quality of work indications, the body having a series of class or step indications for indicating each step or operation performed, and each coupon having a single step indication corresponding to one of the series of step indications on the body.

3. A card record comprising a body and a number of coupons, the body and each coupon having the same distinguishing mark, the same quality of work indications, the body having a series of steps of work indications for indicating each step to be performed and a series of descriptions of work indications, and each coupon having a single step indication and a single indication for the character of the work corresponding to one of the like indications on the body.

4. A card record comprising a body and a number of coupons, the body and coupons having a distinguishing mark, and indicators for the quality of work, the body having a series of indicators for the steps of work and a series of indicators for the description of work, and the coupons each having a single indicator for the step of work and for the description of work corresponding to one of the like indicators on the body, the latter indications on the coupons being in reverse order to the similar indications on the body.

5. A card record comprising a body and a number of coupons, the body and each coupon bearing the same distinguishing mark, and the same indicators for the quality of work, the body having a series of indicators for the steps of work, each coupon having an indicator for the step of work to which it relates, and also indicators for the steps of work corresponding to the preceding coupons.

6. A card record comprising a body having a distinguishing mark, goods identifying marks, indicators for the quality of work, indicators for the steps of work, and indicators for the description of work, each coupon having a similar distinguishing mark, a goods identifying mark, indicators for the quality of work, one indicator for the class of work and one indicator for the description of work, and a designated inspector blank, and also having indicators for the steps of work corresponding to all preceding coupons.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY ZIMMERMAN.

Witnesses:
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