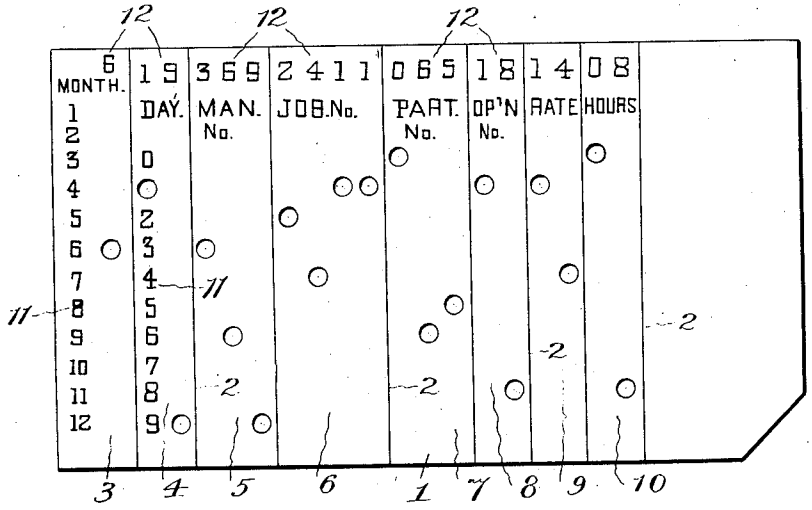
C. W. SPICER.

RECORD ELEMENT FOR TABULATING SYSTEMS.

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1,212,832. Patented Jan. 16, 1917.



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UNITED STATES PATENT OFFICE.

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RECORD ELEMENT FOR TABULATING SYSTEMS.

1,212,832. Specification of Letters Patent. Patented Jan. 16, 1917.

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To all whom it may concern:

Be it known that I, CHARLES W. SPICER, a citizen of the United States of America, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Record Elements for Tabulating Systems, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to record elements for tabulating systems, wherein the data thereon is represented by punch holes which are also utilized for assorting and tabulating, and the particular type of record illustrated herein relates to cost accounting systems wherein the individual account of each man or operator employed is noted upon the same by suitable perforations and indicia.

The invention herein set forth is an improvement on the record card or element shown in Patent No. 677,214, granted to Herman Hollerith, and dated June 25, 1901.

These cost accounting cards or records may include groups or fields representing any suitable data for indicating the month, a similar field for the day, another field for the operator's number, etc., and the location of the various fields or data may be arranged as is most convenient for the particular method of accounting. Heretofore each field on the card or record has had only the punch apertures indicating the month, the day of the month, the operator's number, etc. With this type of card, as heretofore made, when stacked in the card cabinet the reading of the card was rendered extremely difficult where the numbers were high, for instance, the operator's number being 898 or any similar number where the perforations would be arranged at the bottom of the card, which would necessitate its removal for reading.

It is the object of this invention to avoid this difficulty, and broadly speaking it consists in printing figures corresponding to the perforations at the top of the card where they may be readily seen without removing the same from the cabinet. This idea is an improvement over the method employed in the patent granted to Herman Hollerith, No. 945,236, and dated Jan. 4, 1910, wherein it was necessary, from a point of convenience, to use a machine to verify the punches or perforations, and obviates the use of such machine.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which the figure is a plan view of an ordinary cost accounting card commonly used in tabulating systems.

In the specific type of card illustrated herein, there is shown a blank 1 having a plurality of lines 2 extending transversely thereacross and dividing the card into eight separate groups or fields 3, 4, 5, 6, 7, 8, 9 and 10. Each of these fields have a plurality of numbers 11 arranged therein as shown. In the field 3 the numerals run from 1 to 12, while in the remainder of the fields the numerals run from 0 to 9, the zero marks in each of the fields from 4 to 10 aline longitudinally of the card with the numeral 3 in the field 3. At the head of each field suitable indicia is placed to indicate the month, day, operator's check number, job number, part number, operation number, rate per hour, and hours, the latter field indicating the time employed upon a particular job. The card is punched with a plurality of perforations which give the following information: The first field is punched at 6, indicating that the month is June, the second field is provided with a punch at 1, and at 9, indicating the 19th day, the third field is punched at 3, 6 and 9, indicating that the operator's number is 369, the fourth field is punched at 2, 4, and the last two columns thereof are punched at 1, indicating that the job number is 2411, the fifth field has its first column punched with a 0, its second column at 6, and its third column at 5, indicating that the number of the part is 65. The operation number is indicated in field 8 as 18, the punch in the first column being at 1 and in the second at 8, while the rate per hour of the operator is indicated as fourteen cents, the punch of the first column in field 9 being at 1, and in the second column at 4. The last field indicates that the particular man or operator worked eight hours upon this particular job, the punches occurring at 0 and 8 in the first and second columns thereof.

It will be clearly understood that each field such as 3 and 4 and all the other fields have a plurality of columns of numbers, only one column of which is shown in sections 3 and 4 and the particular number which is

punched out of the column is the number which is to be read, only one perforation occurring in each column.

Immediately above the indicia which indicates the contents of the column there is printed a result 12 which is identical with or is a duplicate of the result shown by the perforations or punch holes in the fields. In practice this result is printed simultaneously with the punching of the card and is always at the head of the particular column to which it relates, so that the result of the punches or perforations may be readily seen when the cards are filed in a card cabinet. This will avoid removing the cards from the cabinet, and where a job has consumed but a short time, for instance, four or five days, the amount of time consumed upon any particular operation and the cost of such labor can be readily ascertained by inspecting the printing 12 at the top of the cards. Where the job has consumed a great length of time and there are consequently a large number of cards, they may be more readily selected from the cabinet by the filing number for running the same through the tabulating machine. A large space has been shown at the right hand end of the card, which space can be utilized for other fields found to be necessary in carrying out the cost accounting system.

It is obvious that the printing of the individual indicia as is usually done, is not absolutely necessary for this type of card, sufficient indication of the matter punched through being given by the result printed on the upper margin, the perforations in this case being only used when the data indicated thereby is compiled on the tabulating machine. The same principle can be applied to cards for census purposes, which are punched in columns, and which use symbols of various kinds to indicate the data required, in which case the symbol punched out would be indicated instead of the figures as shown.

Having thus described my invention, what I claim is:—

1. A record element for tabulating systems divided into fields and having columns of indicia in said fields, certain of said indicia indicated by punch apertures in each column to produce a readable item, which punch apertures serve as a means for controlling the operation of a tabulating machine, and a printed item in each field, each character of the printed item being a duplicate of the character indicated by the punch aperture in the column with which it is associated and serving to readily identify the character indicated by said punch aperture.

2. A record element for tabulating systems having a plurality of columns of indicating indicia, certain of said indicia in each column indicated by a punch aperture to produce a single readable character, and a single printed item or character arranged at the head of each column, said printed character being a duplicate of the character indicated by the punch aperture in the column in which said printed character is located, whereby said characters are associated in such a manner as to be readily identified one with the other.

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

CHARLES W. SPICER.

Witnesses:

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