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1,494,204

F. ZGOL ET AL

COMBINATION CHECK

Filed Sept. 6, 1921

Fig. I.

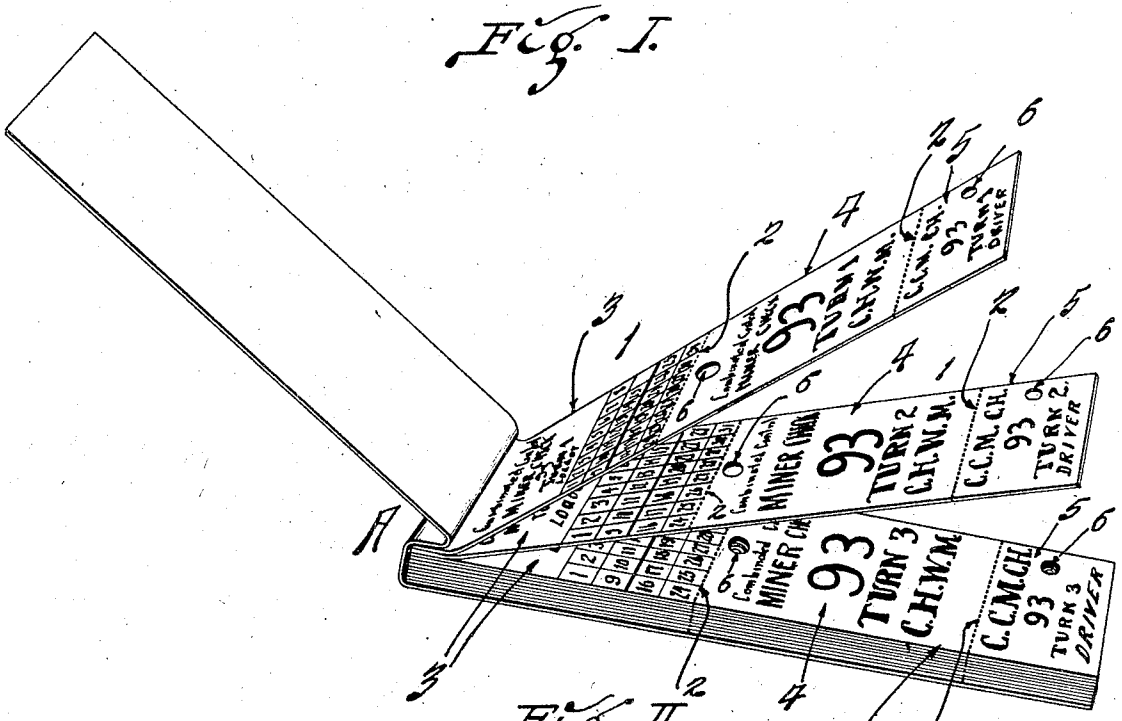
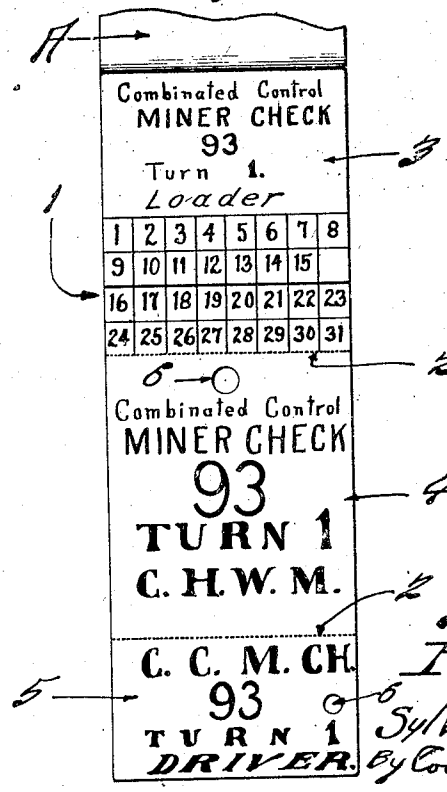


Fig. II.



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UNITED STATES PATENT OFFICE.

FRANK ZGOL AND SYLVESTER KOZLIK, OF SANDOVAL, ILLINOIS.

COMBINATION CHECK.

Application filed September 6, 1921. Serial No. 498,815.

To all whom it may concern:

Be it known that we, FRANK ZGOL and SYLVESTER KOZLIK, citizens of Poland and of the United States of America, respectively, and residents of Sandoval, in the county of Marion, State of Illinois, have invented certain new and useful Improvements in Combination Checks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in combination checks, and particularly to that class of combination check which is used in coal mines to keep a record of the amount of coal mined by each miner and also the amount of coal hauled by each tram driver.

Various systems have been employed in mines in the past to keep the records mentioned above, but none of them have been entirely successful, and the purpose of the present invention is to produce a combination check whereby an accurate record of the work may be kept so that when the mined coal reaches the surface after passing through the hands of several workmen, these workmen will receive credit for their work.

Fig. I is a perspective of one of our check books, said book being open to show the faces of several of the checks therein.

Fig. II is a face view of one of our improved checks.

In the drawings, A designates a check book wherein are bound a number of our improved checks 1. Each of these checks 1 comprise a strip of comparatively heavy paper having transverse lines of perforations 2, whereby said strip is divided into a stub 3 and a pair of tags 4 and 5. The stubs 3, it will be observed, are bound in book form and will be held together as a permanent record after the tags 4 and 5 have been removed therefrom.

The tag 4 and the tag 5 of each strip are each provided with an aperture 6, the purpose of which will be subsequently pointed out.

Each stub 3 is printed with numbers from 1 to 31, one for each day of the month, and each of said numbers is preferably enclosed within a small square. The purpose of these numbers will be subsequently pointed out, it being sufficient to say here that the stub is the miner's record of the work he has done and remains in his hands, and that the numbers just mentioned are marked or punched to indicate the day on which a certain tram load of coal was mined.

All of the strips in a single check book are consecutively numbered, the numbers appearing in three places on each strip. It will be observed by referring to Fig. I that the stub 3 and the tags 4 and 5 of the first check have "Turn 1" printed on their faces, and that "Turn 2" is printed on the stub and tags of the record check, this being continued throughout the book. Each stub and tag in the book also has printed on its face the number of the miner in whose hands the book is.

The operation of our improved system is as follows:

To begin, a loader or digger known as miner 93, for instance, will at the beginning of the two weeks' or month's period receive check book 93 wherein all of the stubs and tags are printed with his number. After he has loaded his first tram or completed his first turn, as it is spoken of in the mine, he tears off the tags 4 and 5 of the first check and hangs them on a hook provided for that purpose on the tram. When the tram driver comes to take the tram away, the loader or digger hands him his check book and the driver punches the stub thereof in the square that contains the number corresponding to the day on which the turn was completed; if for instance the work was done on the 15th day of the month, the square that contains the number "15" would be punched. The driver will then tear the tag 5 off of the tag 4, and will retain the tag 5 as his record. The tram is now drawn to the hoist and carried to the surface where a clerk removes the tag from the car and gives miner 93 credit for 1 turn.

By this system a triple check is obtained which makes it very unlikely that a mistake will occur. Assuming, for instance, that the tag 4 which goes with the tram is lost from said tram, as a result of which the clerk on the surface would not know to whom to give credit for said tram, when the book of the clerk was checked against the miner's check book and the drivers' tags it would be discovered that the miner had punches for 5 trams (for example) in his check book and that the driver had turned in 5 tags bearing the number of miner 93, hence as miner 93 had

received credit for but 4 trams in the clerk's book it would be apparent that he had mined the untagged tramload of coal.

It is obvious that it would be equally as simple to trace the discrepancy where the driver had neglected to punch the stub in the miner's check book, or where the driver had lost one of his tags.

To increase the efficiency of the system all of the miners in the territory of a certain driver will begin work at the beginning of a work shift on a turn which bears the same number. For instance, an average day's work is five turns; however, one miner works more slowly than the others and completes but four turns, hence at the beginning of the second day the driver will tear from the book of the last mentioned miner and destroy the tags 4 and 5 of the check marked "Turn 5" but will not punch the stub of said check, consequently inasmuch as the stub is not punched and the tag 4 does not get to the clerk on the surface, said miner does not get credit for a turn and all of the miners will begin work on turn 6. Also, if a miner misses a day's work, when said miner returns to work the driver will tear from his book a number of checks corresponding to the number of turns completed in his absence. Thus, if all of the miners are working on turn 8 and an untagged tram is brought up said tram will probably belong to the miner whose tags jump from 7 to 9, thereby simplifying the task of locating lost trams.

The apertures 6 in the tags 4 and 5 are provided to enable the driver to hang the tag 4 on a hook carried by the tram and the tag 5 on a hook provided for the reception of said tags at a convenient place in the mine.

We claim:

A checking system comprising a plurality of strips of material, each of which comprises a stub and a pair of detachable tags, said strips being consecutively numbered, said stub and each of said tags of each strip having the number of the strip of which it forms a part indicated thereon, and each stub and each tag of each strip bearing the number of the person who issued said tag, the stubs of said plurality of strips being permanently bound together to constitute a permanent record and each stub of each strip having numbers thereon corresponding to the days of the month whereby said stub may be punched to designate the day on which said tags were issued and each of said tags being provided with an aperture formed therethrough.

In testimony that we claim the foregoing we hereunto affix our signatures.

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SYLVESTER KOZLIK.