

No. 645,900.

Patented Mar. 20, 1900.

E. S. FREASE.  
MANIFOLDING CARBON SHEET.

(Application filed Dec. 5, 1899.)

(No Model.)

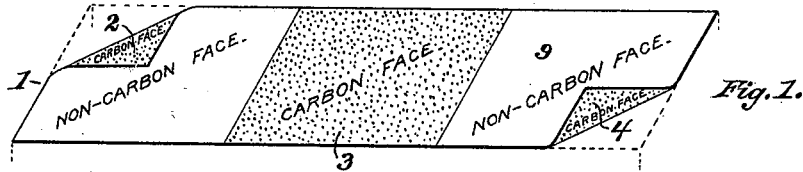


Fig. 1.

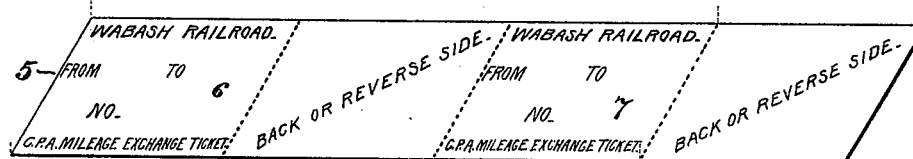


Fig. 2.

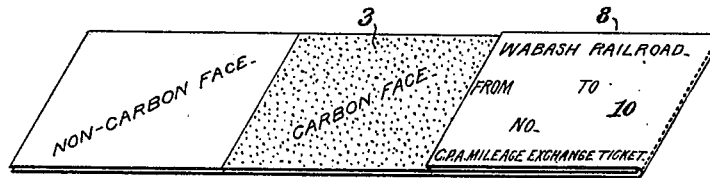


Fig. 3.

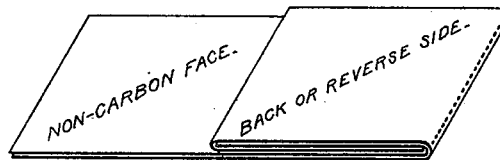


Fig. 4.

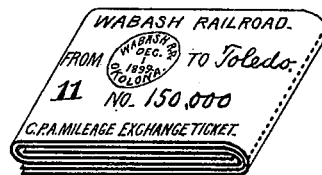


Fig. 5.

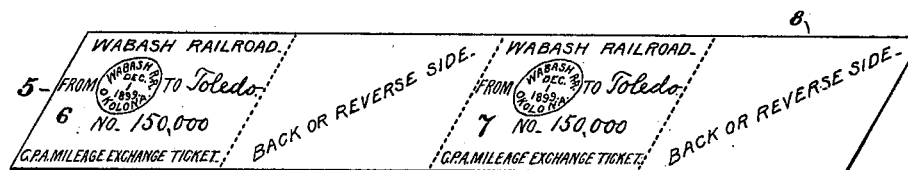


Fig. 6.

WITNESSES:

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INVENTOR

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# UNITED STATES PATENT OFFICE.

EDWIN S. FREASE, OF OKOLONA, OHIO.

## MANIFOLDING CARBON-SHEET.

SPECIFICATION forming part of Letters Patent No. 645,900, dated March 20, 1900.

Application filed December 5, 1899. Serial No. 739,236. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN S. FREASE, a citizen of the United States, residing at Okolona, in the county of Henry and State of Ohio, have  
5 invented certain new and useful Improvements in Manifold-Carbon and Manifold-  
ing; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed  
10 drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a detached view of the carbon-sheet. Fig. 2 is a detached view of the sheet  
15 or ticket to be manifolded. Fig. 3 is a view showing the carbon-sheet and sheet or ticket placed in relative position and the first fold made. Fig. 4 is a similar view showing second fold made. Fig. 5 shows the carbon-sheet  
20 and sheet or ticket with the third or final fold made and all the parts in position for use. Fig. 6 is a detached extended view of the sheet or ticket, showing the carbon-sheet removed and the sheet or ticket manifolded.

25 The present invention has relation to manifold-carbon and manifolding; and it consists in the novel arrangement hereinafter described, and particularly pointed out in the claims.

30 Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the carbon-sheet, which may be of any form  
35 or size desired, reference being had to the use to which it is to be applied.

For the purpose hereinafter described the carbon-sheet 1 is provided with alternating carbon faces 2 3 4 on the respective sides of  
40 said sheet. The sheet or ticket 5 to be manifolded is prepared with the face or faces to be manifolded occurring upon opposite sides thereof corresponding with the alternating faces of the carbon-sheets.

45 Of course it will be understood that any printed blanks may be prepared with the alternating faces, as described.

In use the carbon-sheet 1 is placed upon the sheet or ticket 5, the carbon faces 2 and  
50 4 coming in contact with the faces 6 and 7, respectively, of the sheet or ticket to be manifolded, thus bringing the non-carbon faces in

contact with the respective back or reverse faces of said sheet or ticket. After the carbon-sheet and sheet or ticket have been arranged as above described the extending section 8 of the sheet or ticket is folded over, as  
55 illustrated in Fig. 3, bringing the back or reverse side of said section in contact with the non-carbon face 9 of the carbon-sheet. A  
60 second fold is then made, as illustrated in Fig. 4, which brings one of the alternate faces to be manifolded, as 10, upon the carbon face 3, as illustrated in Fig. 4, after which the  
65 final fold is made, as illustrated in Fig. 5, by which arrangement the carbon-sheet and the sheet or ticket to be manifolded are brought into proper relative position, the carbon faces  
70 of the carbon-sheet coming in contact with the alternate face sides of the respective sections of the sheet or ticket, the non-carbon faces of the carbon-sheet coming in contact with the alternate back or reverse sides of the  
75 respective sections of the sheet or ticket, and the face sides of the respective sections of the sheet or ticket all coming in the same direction, after which but one operation is required to stamp, print, or write upon the top or exposed face 11 of the sheet or ticket, thereby  
80 making exact carbon copies thereof on the face sides of all the other sections of said sheet or ticket, by which arrangement the labor of duplicating is greatly reduced and at the same time all liability of error is avoided.

It will of course be understood that after  
85 the manifolding has been accomplished the carbon-sheet and sheet or ticket are unfolded and the carbon-sheet removed, and the same may be used again in a similar manner.

I have in the above description illustrated  
90 my invention in connection with a railroad-ticket requiring four similar sections or divisions; but it will be understood that the number of sections or divisions may be decreased or increased without departing from  
95 the nature of my invention, or the invention can be applied to other articles besides railroad-tickets, inasmuch as the only object to be accomplished is to provide a carbon-sheet with alternating carbon faces and sections  
100 with face sides alternating to be manifolded regardless of the particular kind of sheet to which the alternating faced carbon-sheet is to be applied.

It will be understood that by my peculiar arrangement I am enabled to manifold the respective sections of the sheet or ticket, so that the proper face is printed, leaving the reverse side clean.

The carbon-sheets 1 are formed without perforations or divided sections, so far as the sheet proper is concerned; but in order to carry out the above-described purpose there is at all places in the extent of the sheet a carbon face either on one side or the other, and at no one place is there a carbon face on both sides of said sheet—that is to say, the line along which a carbon face joins a non-carbon face on one side of the sheet coincides with or is opposite the line along which a non-carbon face joins a carbon face on the other side of said sheet. This construction makes a carbon-sheet in which the carbon faces on the respective sides added together is equal to the total length of the sheet and the same with reference to the non-carbon faces, and the amount of carbon or copying material necessary to be applied being the same as though the sheet were prepared with carbon or copying material on one side and clean on the other; but with my peculiar arrangement the carbon-sheet can be used for manifolding sections of blanks or tickets folded successively one upon another, the same as might be done with a carbon-sheet prepared with carbon or copying material applied on both sides throughout, with the added advantage that a carbon face always comes in contact

with the front or obverse face of the blank or ticket to be copied and a non-carbon face always comes in contact with the back or reverse face of said blank or ticket, thus leaving said back or reverse face clean after the copy has been made.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The sheet 1 provided with alternating carbon and non-carbon faces respectively on both sides, substantially as and for the purpose specified.

2. The combination of a carbon-sheet provided with alternating carbon and non-carbon faces respectively on both sides, and a sheet having obverse and reverse alternating face-sections, substantially as and for the purpose specified.

3. The sheet 1 provided with alternating carbon faces and non-carbon faces, the carbon and non-carbon portions of the sheet joined on the respective sides and their aggregate length equaling the length of the sheet, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EDWIN S. FREASE.

Witnesses:

HARRY FREASE,  
JOSEPH FREASE.