May 2, 1933. A. J. ARANA 1,907,313

BOOK MATCH

Filed April 18, 1931

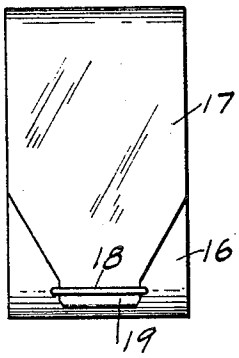



Fig. 1.

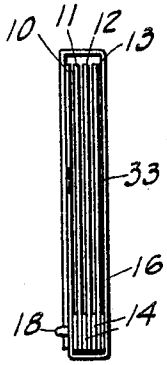



Fig. 2.

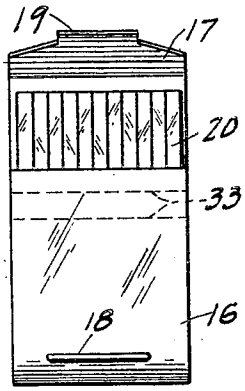



Fig. 3.

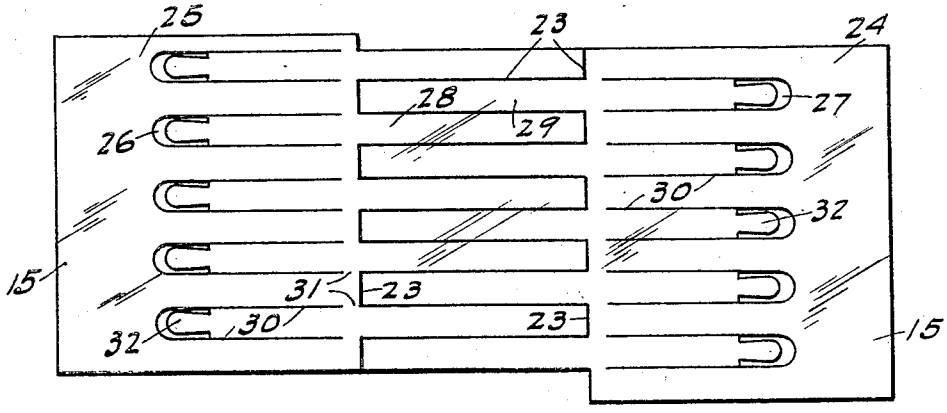



Fig. 4.

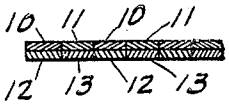



Fig. 6.

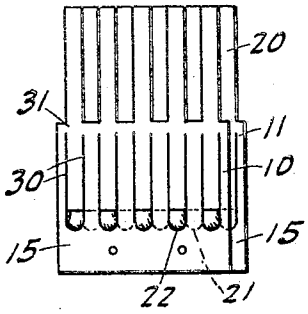



Fig. 5.

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# UNITED STATES PATENT OFFICE

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## BOOK MATCH

Application filed April 18, 1931. Serial No. 531,189.

This invention is for a book match and is specially related to the type of which each individual match is ignited on withdrawal from the package, or which may be ignited after withdrawal.

The main object of the invention is to provide a book match in which each match head is isolated from the others in the book, and in which the match heads are not exposed previous to withdrawal.

Another object of the invention is to provide a book of matches in which the splints are exposed the match being withdrawn by pulling on the splint, the match being attached intermediately of the splint, by a rupture section of small area.

A further object of the invention is to form individual pockets in the splint material to receive the match heads, and to stagger the matches so as to prevent contact of one match head with another.

Further objects and advantages of the invention will become apparent as the following description is read on the drawing forming a part of this specification and in which similar reference characters indicate similar parts throughout the several views, and in which:

Fig. 1 is a front view of the match book;

Fig. 2 is a side view of Fig. 1;

Fig. 3 is a front view of the invention with the cover raised;

Fig. 4 is an enlarged section of splint stock blank formed and slit to provide two sheets of matches;

Fig. 5 is a view of two sheets of matches in assembled position;

Fig. 6 is a section transversely through a set of four sheets of splints.

The match book consists of preferably four sheets 10, 11, 12 and 13 of five matches each, the sheets being spaced apart as indicated at 14, either by insertion of strips or forming the ends 15 over to form spacers, the assembled sheets being secured in a folder 16 having a cover 17, the folder having a clip 18 to receive the tongue 19 of the cover 16. It will be noted that only the splints 20 are exposed when the cover 17 is raised.

Fig. 5 indicates the assembled structure of two sheets 10 and 11 which are staggered so that the heads 21 on sheet 11 fall between the heads 22 on sheet 10, thereby isolating the match heads.

Referring to Fig. 4, a method of blanking and forming the sheets is indicated and shows the preferred form of making up the sheets of splints, a sheet being sheared following the lines 23 forming a pectinate structure and dividing the strip of match splint material into two sheets 24 and 25. Each sheet has a plurality of match head pockets 26 and 27 formed in line with their respective splints 28 and 29, and the splint stock is slit from the pockets 26 and 27 to a point adjacent the root 23 between the respective splints, as indicated at 30, leaving an intact portion 31 of small area which is more easily ruptured than the splints 28 or 29.

The head end of each splint is preferably made inwardly converging as shown at 32, and the pockets 26 and 27 are made of sufficient size to accommodate the match heads after dipping, and dipping may be accomplished by bending the head end of the splints out from the sheet, for dipping then permitting them to retract to their original position.

By referring to Fig. 6, it will be noted that when the four sheets of matches are assembled that the splints form but two rows, therefore by providing a striker strip 33 on the inside surface of both the front and back portions of the folder, each and every match in the book will be engaged or caused to coact with either the front or back striker strip, which is made of a form or material suitable for igniting the specific type of match head.

The matches are removed by pulling outwardly on one of the splints 20 which ruptures the portion 31 drawing the head end of the splint between the striker strips and igniting the match ready for use.

Having described an operable method of constructing and using the invention, it will be noted that variations in construction and arrangement of parts which are consistent with the appended claims may be resorted to

without detracting from the spirit or scope of the invention or sacrificing any of the advantages thereof.

What I claim is:—

1. A match sheet comprising a plurality of parallel spaced apart matches detachably integral with said sheet, pockets formed in the lower portions of said sheet to receive the match heads, the tail ends of the splints extending beyond the integral portion being presented for withdrawal of the matches in spaced apart relation.

2. A match sheet comprising a sheet of match splints having exposed ends of pectinate structure, forming a plurality of splints each having an intermediate rupture section with said sheets, the head portion of the splint being disposed in said sheet, and pockets formed in said sheet to receive the dipped heads of said matches.

3. A match sheet consisting of a body portion having a plurality of spaced apart parallel projecting splint ends adapted for withdrawal of the matches, the head portion of the splints being formed within said body portion and retained by intermediate side rupture sections, and pockets formed in said body portion to receive the dipped heads of said matches.

In testimony whereof I have affixed my signature.

ALFONSO J. ARANA.