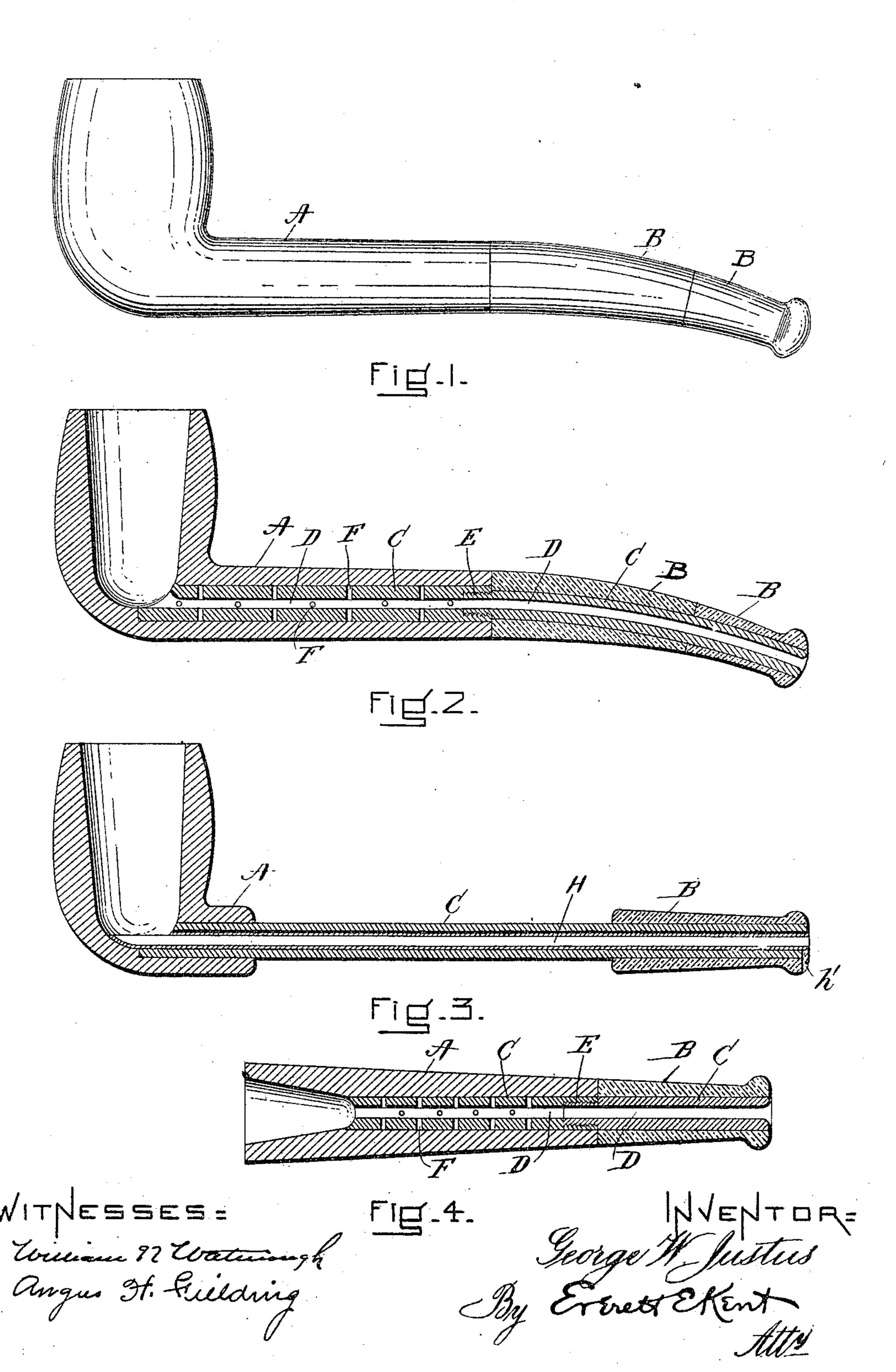
## G. W. JUSTUS. TOBACCO PIPE.

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## UNITED STATES PATENT OFFICE.

GEORGE W. JUSTUS, OF SOMERVILLE, MASSACHUSETTS.

## TOBACCO-PIPE.

No. 807,828.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, George W. Justus, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Tobacco-Pipes, of which the following is a specification, reference being had to the accompanying drawings, in which—

ro Figure 1 is an elevation of a tobacco-pipe made according to my invention. Fig. 2 is an elevation in section of the same. Fig. 3 is an elevation in section, showing the invention applied to a different form of pipe. Fig. 4 is an elevation in section of a cigar and cigarette holder to which my invention is applied.

My invention relates more particularly to the manufacture of pipes and similar articles for smoking-tobacco, such as cigar and ciga-20 rette holders, in which part of the article is composed of a frangible material, such as meerschaum, clay, rubber, amber, or a composition made in imitation thereof. In pipes and cigar-holders composed wholly or in part 25 of such materials it has hitherto been a frequent occurrence for the pipe to break in the course of transportion from the maker to the retail dealer or in the hands of the purchaser and user. These breakages of the meerschaum, 30 amber, or other material occur very easily and in a manner that is annoying both to the dealer and to the user. Moreover, when broken it is expensive to make a satisfactory repair.

One of the objects of my invention is to provide a pipe or similar article which shall have the advantages possessed by pipes made of materials such as those above named and at the same time be less liable to breakage.

It is also my object to make an article which even though broken may yet remain useful in its broken condition and be readily repaired. It is also my object to make a pipe which will give to its user a cool smoke, one which will color itself by use more quickly than pipes made in the manner customary hitherto and which will have the other advantages inherent in the structure which I am about to describe.

I accomplish the purposes above set forth by constructing my pipe or cigar-holder with 50 a central core of non-frangible material. This core is surrounded by the meerschaum, amber, or other material, which is to form the exterior of the pipe or pipe-stem, the core being thus concealed from view, so that in 55 the case of an opaque material, such as meerschaum, it is not apparent to the eye that the

stummel of a meerschaum pipe, for example, made according to my invention is not composed entirely of meerschaum. By this means I produce a pipe in which the beauty and other 60 advantages of meerschaum and amber or whatever other material is to form the exterior are retained and their disadvantages largely eliminated. It is not essential that the central core be absolutely unbreakable; but I have 65 used the word "non-frangible" above in a relative sense, meaning that the core should have the qualities of stiffness and tenacity as distinguished from brittleness.

Referring to the drawings, A represents 70 the stummel, and B the mouth piece, of a pipe. In the pipe represented in the drawings the stummel is of meerschaum and the mouthpiece of amber, and for convenience I shall speak of my invention as applied to these ma- 75 terials, although it is obvious that it may equally well be applied to other materials. Within the stummel A is a core C, which is made, preferably, of aluminium, which material combines in itself the attributes of light-80 ness, stiffness, strength, and tenacity. In the core is a smoke-passage or draw-hole D, running from the bowl to the mouthpiece, while surrounding the core is a body of meerschaum which constitutes the exterior and visible por- 85 tion of the stummel. It is desirable to have the material surrounding the core united so closely to it as to be practically integral therewith. This may be accomplished by fitting the core and meerschaum close together and 9° by the use of cement. In order to make the structure even firmer, the bowl end of the core may be expanded a little, as shown in Fig. 2, being reached for this purpose by an instrument inserted through the bowl. The 95 mouthpiece B also has a core C with a smokepassage D in it arranged to form a continuation of the hole through the stummel. Any suitable form of connection between the stummel and mouthpiece may be used; but it is a 100 particular advantage of my invention that a firm and rigid connection between the two may be made without imposing any strain on the meerschaum, amber, rubber, or other material composing the pipe. At the point where 105 the stummel and mouthpiece join, the core of each is provided with a screw-thread E, cut directly in the respective cores. Thus all strains comes on the stiff strong material of the core, and the element of weakness fre- 110 quently found in some types of pipes as hitherto constructed is eliminated. I thus obtain

a joint which is strongly wear-resisting, with the result that the mouthpiece and stummel can be screwed up and joined tightly and firmly together in spite of long usage, and this firm-5 ness also helps reduce the liability of breakage.

When the material which is to be used to surround the core is transparent, as in the case of amber, through which the core would be visible, the exterior of the core may be 10 colored, if desired, before the parts are assembled, so that its presence will be less noticeable, or it may be colored to be more noticeable and made of such a color as to add to the beauty of the pipe. If it is desired to make 15 a pipe with a curved mouthpiece, a core made of soft or annealed metal may be employed, the core and amber being together bent in manufacture into the shape desired. The use of a core in the manner described also 20 enables me to utilize small pieces of amber not long enough of themselves individually to form a mouthpiece, these pieces being placed side by side on the core and held together thereby. A variegated effect will be 25 obtained by using clear and clouded pieces of amber alternately or by using amber alternately with other material. It is obvious that cheaper materials than amber may be substituted for part of the length of the mouth-3° piece—for example, rubber or celluloid—and I have indicated such in Fig. 7 reverse part 1 may be supposed to be celluloid and the part 2 amber.

Referring to the structure shown in Fig. 2, 35 it will be seen that by making the core of metal which is a good conductor of heat and making it relatively large with respect to the entire diameter of the stem heat will be conducted quickly away from the smoke-passage 4° through the metal to the outside of the core, from which place it has to pass through only a relatively thin layer of the slow conducting meerschaum before meeting the outside of the pipe, where it is dissipated in the air. 45 Thus the heat is more rapidly abstracted from the smoke as it passes through the passage from the bowl to the smoker's mouth than it would be if the stem were composed entirly

50 In Fig. 3 I have shown a modification in which the core is covered with material only at the bowl end of the stummel and at the mouthpiece, the intervening portion of the core being exposed to the air. In this con-55 struction the cooling effect is even greater because of the exposure of the core to the air.

of meerschaum.

The smoke-passage through the core of the pipe may, if desired, be provided with some form of cleaning means for cleaning the pipe, 60 and in the pipe shown in Fig. 3 I show such a cleaning device inserted. The particular form illustrated consists of a tube H of suitable size to fit the smoke-passage, adapted to be inserted and normally maintained in that 65 position. This tube is removable, a small notch h' being provided at the mouthpiece end, so arranged that it can be engaged by the finger-nail, taken out, cleaned by mechanical or other means, and returned to its place. This cleaning device, however, forms no part 70 of my invention, and any other cleaning device that may be desired may be used in its place, the smoke-passage through the core being made of whatever shape is necessary in order to accommodate the particular form of 75 cleaning device it is desired to use, or the use of a cleaning device may be dispensed with entirely.

When the material surrounding the core is to be meerschaum, I may provide the core C 80with a number of radial perforations F, leading from the smoke-passage to the exterior of the core. These perforations conduct nicotin to the outside of the core, and thus give it access to the meerschaum at points rela-85 tively near the surface of the meerschaum. It follows that the coloring therefrom reaches and colors the surface of the meerschaum quicker than it does in pipes in which the body of meerschaum to be traversed is thicker. 90 By spacing the perforations at a little distance apart the pipe colors first opposite the several perforations, thus acquiring a mottled appearance which is pleasing to the eye and which, so far as I am aware, it has not been 95 possible to obtain prior to my invention. If the mottled appearance is not desired, it may be avoided by arranging the perforations close together.

If a pipe constructed in the manner I have 100 described receives a blow severe enough to break the meerschaum, that breakage will not ordinarily break the pipe, for the core will hold firm. Unless the meerschaum be broken into bits it will in spite of the fracture remain 105 in place on the core, and the pipe will not be damaged except for the presence of a crack. It is obvious also that in cases where a portion of the meerschaum is split off the presence of this core assists in making a repair.

The invention which I have described applies to the construction of cigar and cigarette holders, as well as to pipes, and it is evident that as to materials it is not limited to the specific materials—meerschaum, clay, &c.— 115 that I have mentioned, but that it is applicable to use with other materials as well, and also that it is not necessary to use aluminium for the core, but that any other suitable material may be employed in its place.

I claim—

1. In an article of the class described, the combination of tobacco-holding means; a stem therefor composed exteriorly of frangible material; a core in the stem composed of less-125 frangible material; a mouthpiece composed exteriorly of frangible material; a core in the mouthpiece composed of less-frangible material; there being a smoke-passage through said stem and mouthpiece; and means to join the 130

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said stem and mouthpiece together, as and for

the purpose set forth.

2. In an article of the class described, the combination of tobacco-holding means; a stem therefor composed exteriorly of frangible material; a core in the stem composed of less-frangible material; a mouthpiece composed exteriorly of frangible material; a core in the mouthpiece composed of less-frangible material; there being a smoke-passage through said stem and mouthpiece; said cores being shaped and adapted to be joined together, thus uniting the mouthpiece and the stem, as and for the purpose set forth.

3. In an article of the class described, the combination of a tobacco-holding means, and a stem therefor composed exteriorly of a frangible material colorable by tobacco, there being a core in the stem composed of less-frangible material and provided with a smoke-passage and with a multiplicity of perforations leading from the smoke-passage to the mate-

rial surrounding the core, as and for the purpose set forth.

4. In an article of the class described, the 25 combination of a tobacco-holding means, and a stem therefor, composed interiorly of a core of material relatively impervious to the effect of tobacco and exteriorly of material colorable by tobacco; there being a smoke-passage 30 through the core and a multiplicity of perforations leading from the smoke-passage to the colorable material, said perforations being located and arranged in the core at some distance one from another thereby to produce a 35 mottled color in said colorable material, as and for the purpose set forth.

Signed by me at Boston, Massachusetts, this

29th day of November, 1902.

GEORGE W. JUSTUS.

Witnesses:

EVERETT E. KENT, GEORGE MCANAUL.