

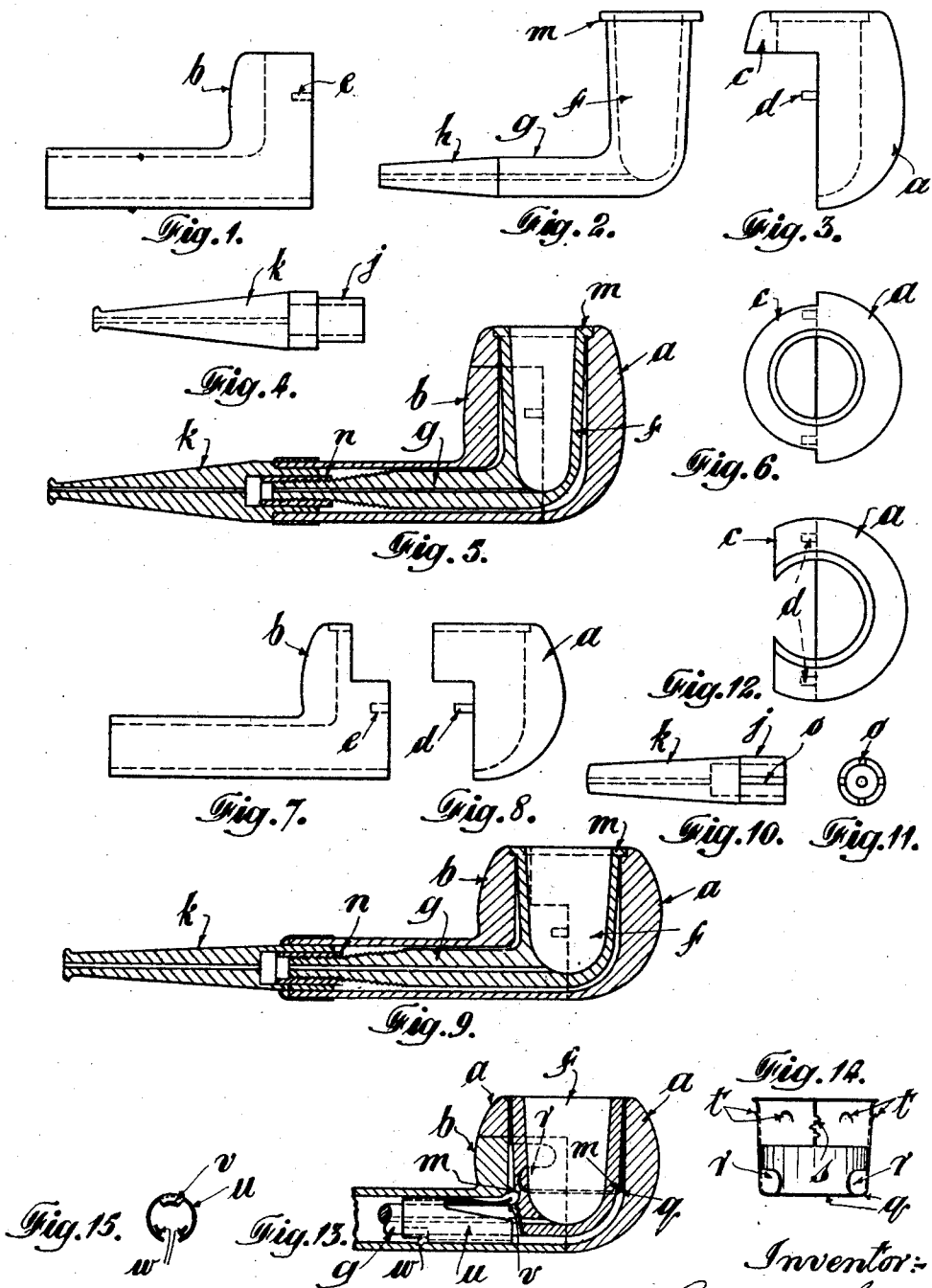
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TOBACCO PIPE

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UNITED STATES PATENT OFFICE.

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TOBACCO PIPE.

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This invention relates to tobacco pipes. The object of this invention is to provide a pipe with a detachable lining.

A pipe made in accordance with this invention comprises an outer shell having a portion of the bowl detachable to admit a lining which is adapted to be secured within the body of the shell by its stem, and in turn also secure the detachable portion of the bowl to the shell.

Referring to the accompanying drawing.

Figs. 1, 2, 3 and 4 are detail elevations of parts, and

Fig. 5 is a sectional elevation of one form of assembled pipe made in accordance with the invention.

Fig. 6 is a plan of Fig. 3.

Figs. 7 and 8 are elevations of the body part of a modified form of pipe, of which

Fig. 9 is a sectional elevation of assembled modified pipe.

Figs. 10 and 11 are elevations and end view of the mouthpiece, shown in Fig. 9.

Fig. 12 is a plan of Fig. 8.

Fig. 13 is a sectional elevation of a further modification.

Fig. 14 is an elevation of the bowl lining therein and

Fig. 15 is an end elevation of the spring stem clip.

In one form of this invention as shown in Figs. 1 to 6, the outer shell of the pipe comprises a briar, the forward portion *a* of the bowl of which has been severed from the body portion *b* partly by a cut in a plane through the axis of the bowl and transversely of the pipe, and partly by a cut at right angles to such other cut from the stem side of the bowl, so as to leave a ring *c* of the upper portion of the bowl on such detachable portion. On the faces of the cut, transverse to the bowl, are provided co-acting locating pins *d* and sockets *e*. The lining is substantially a clay pipe with a bowl *f* and stem *g*, the stem fitting into the stem of the outer shell and having a tapered portion *h* thereof screwed or roughened on the outside to receive and engage the end of the mouthpiece *k*. The bowl *f* of the lining is formed with a flange *m* and fits at its upper end in the ring *c* of the detachable portion *a* of the bowl, so that, while the mouthpiece *k* retains the lining within the body portion *b*, the bowl *f* of the lining secures the detachable portion *a* of the shell to the body portion *b*.

The lining may be of other suitable ma-

terials besides clay and the mouthpiece *k* may be formed with a stiff rubber end vulcanized thereto or may be adapted to receive a rubber sleeve *n* to screw or press on to the end *h* of the stem of the lining and preferably located in the end of the mouthpiece. The sleeve *n* may be of cork or other resilient material and additional securing means for the detachable portion of the outer shell may be provided if desired.

The rubber sleeve *n*, employed between the mouthpiece and the lining, enables the mouthpiece to be adjusted after the pipe has been tightened to bring the mouthpiece into the correct position with respect to the bowl without overstraining the lining.

In a modified form, as shown in Figs. 7 to 12, the detachable portion *a* is severed from the body part *b* in such a manner as to leave only an extension *c* on each side of the upper portion, instead of a complete ring, but these will be sufficient to be engaged by the bowl *f* of the lining so as to be held thereby in place. The cut for the detachable portion may be arranged in any suitable direction so that the lining may be inserted, and if desired, the detachable portion *a* may be secured to the bowl *f* by separate means such as a clip or catch, without departing from the scope of the invention.

In the modification, the mouthpiece *k* has no shoulder, the engaging end *j* being cylindrical and formed with four slits *o* so that it may expand into and grip in the stem of the shell in proportion to its grip, on the lining as it is screwed on to the tapered end *h* thereof, by reason of the expanding pressure transmitted by the rubber sleeve *n*, or the end *j* and the bore in the stem of the shell may be tapered to produce this grip on the sleeve and on the stem of the lining.

In the modification shown in Figs. 13, 14 and 15 the bowl of the shell is cut similarly to the form first described but the flange *m* of the lining is formed lower down and a metal lining *p* is provided, pressed into the detachable portion *a* and shaped to provide a shoulder for the flange *m*. This metal lining, which is shown in Fig. 14, is formed from the flat, and made slightly conical, the lower edge being turned in at *q* and the lower back portion being cut away to leave tongues *r* on each side which are sprung in slightly to grip the bowl of the lining. The seam of this metal lining is formed at the back and small interlocking tongues *s* are provided to

locate the parts, and spurs *t* are struck to project out of the side of the lining to engage in the upper ring of the detachable portion *a* and permanently secure the lining therein.

5 This modification is further distinguished in that no dowels are used, thus saving considerably in the cost of manufacture, and to enable this to be done a spring stem clip *u* is provided. This clip *u* is cylindrical to fit
10 into the bowl end of the body portion *b*, and is formed with a long upper tongue *v* at the bowl end and two short locating tongues *w, w* at the lower mouthpiece end. The clip itself is sprung so as to grip in the bore of
15 the body part being normally as shown in Fig. 15 but closing in when pressed into place, and is also formed from the flat. In use the tongue *v* pressing on the upper side of the stem of the lining, draws the bowl of the lining
20 down so that the flange *m* engages with the turned in portion *q* of the metal lining and thereby draws the detachable part *a* down against the body part *b*. This action would be the same where the flange *m* is
25 formed as in the two forms previously described. The locating tongues support the stem so as to centralize it in the bore of the body part *b* against the action of the spring tongue *v*. The lining is held by its stem as
30 in the other forms and thus the detachable portion *a* is held to the body part *b* by forces in both directions and no other securing means are required.

35 In each form the lining is inserted stem first through the top of the detachable portion and then inserted into the body of the shell.

Also, while I prefer the detachable portion of the pipe to be completely severable from
40 the body, as in both the above forms because the joint may then be substantially invisible, it may be hinged or otherwise connected so that the lining can be inserted and so that the detachable portion is held by the lining;
45 for, so long as the lining is secured by its stem, and holds the detachable portion of the pipe, there will be no departure from the nature of the invention.

It is well known that certain smokers prefer a clay pipe though they generally smoke
50 a briar because they do not like the outward appearance of the clay pipe. This pipe will however, enable this difficulty to be overcome, giving the benefits of a clay pipe smoke and
55 having the outward general appearance of an ordinary briar. The clay linings are easily replaceable and the parts are always firmly secured.

What I claim is:—

60 1. A tobacco pipe comprising an outer shell, said shell having a body portion and a movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and a
65 bowl means for securing the said lining by

its stem, and co-acting means on said movable portion and said lining for attaching the movable portion to the body portion.

2. A tobacco pipe comprising an outer shell, said shell having a body portion and a
70 movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and a bowl, a detachable mouthpiece in said body
75 portion engaging and securing said lining by its stem and co-acting means on said movable portion and said lining for attaching the movable portion to the body portion.

3. A tobacco pipe comprising an outer shell, said shell having a body portion and a
80 movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and a bowl, a flexible sleeve associated with the stem of said lining, a detachable mouthpiece
85 in said body portion engaging said flexible sleeve to secure said lining by its stem, and co-acting means on said movable portion and said lining for attaching the movable portion
90 to the body portion.

4. A tobacco pipe comprising an outer shell, said shell having a body portion, with stem, and a movable portion, means for locating the movable portion on said body portion,
95 a detachable lining in said shell having a stem and bowl, a detachable mouthpiece in the stem of said body portion engaging firmly with the body portion and with the stem of said lining to secure said lining, and co-acting
100 means on said movable portion and said lining for attaching the movable portion to the body portion.

5. A tobacco pipe comprising an outer shell, said shell having a body portion, with stem, and a movable portion, means for locating the movable portion on said body portion,
105 a detachable lining in said shell having a stem and bowl, a flexible sleeve on the stem of said lining, a detachable mouthpiece fitting firmly in the stem of said shell and fitting
110 firmly over said flexible sleeve to secure said lining within the body portion by its stem, and co-acting means on said movable portion and said lining for attaching the movable portion to the body portion.
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6. A tobacco pipe comprising an outer shell, said shell having a body portion, with stem, and a movable portion, means for locating the movable portion on said body portion,
120 a detachable lining in said shell having a stem and bowl, a detachable mouthpiece in the stem of said body portion having a flexible end to engage proportionally with the body portion and with the stem of said lining to secure said lining, and co-acting means on said
125 movable portion and said lining for attaching the movable portion to the body portion.

7. A tobacco pipe comprising an outer shell, said shell having a body portion, with stem, and a movable portion, means for locating
130

ing the movable portion on said body portion, a detachable lining in said shell having a stem and bowl, a flexible sleeve on the stem of said lining, a detachable mouthpiece in the stem of said body portion having a flexible end to engage with the flexible sleeve so as to be expanded thereby to increase its grip within the body portion proportionally with its grip on the said sleeve thereby securing the lining, and co-acting means on said movable portion and said lining for attaching the movable portion to the body portion, as set forth.

8. A tobacco pipe comprising an outer shell, said shell having a body portion and a movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and a bowl, means for securing the said lining by its stem and co-acting flanges on said movable portion and on the bowl of said lining for attaching the movable portion to the body portion, as set forth.

9. A tobacco pipe comprising an outer shell, said shell having a body portion, with stem, and a movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and bowl, a flexible sleeve on the stem of said lining, a detachable mouthpiece in the stem of said body portion having a flexible end to engage with the flexible sleeve so as to be expanded thereby to increase its grip within the body portion proportionally with its grip on the said sleeve thereby securing the lining, and co-acting flanges on said movable portion and on the bowl of said lining for attaching the movable portion to the body portion, as set forth.

10. A tobacco pipe comprising an outer shell, said shell having a body portion and a movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and a bowl, means for securing the said lining by its stem, a flanged liner in said movable portion and a co-acting flange on the bowl of said detachable lining for attaching the movable portion to the body portion, as set forth.

11. A tobacco pipe comprising an outer shell, said shell having a body portion with stem, and a movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and bowl, a flexible sleeve on the stem of said lining, a detachable mouthpiece in the stem of said body portion having a flexible

end to engage with the flexible sleeve so as to be expanded thereby to increase its grip within the body portion proportionally with its grip on the said sleeve thereby securing the lining, a flanged liner in said movable portion and a co-acting flange on the bowl of said detachable lining for attaching the movable portion to the body portion, as set forth.

12. A tobacco pipe comprising an outer shell, said shell having a body portion and a movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and a bowl, means for securing the said lining by its stem, a flanged liner in said movable portion and a co-acting flange on the bowl of said detachable lining for attaching the movable portion to the body portion, and a spring locating sleeve within the said body portion, co-acting with the stem of said lining to locate and support the lining therein, as set forth.

13. A tobacco pipe comprising an outer shell, said shell having a body portion, with stem, and a movable portion, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and bowl, a flexible sleeve on the stem of said lining, a detachable mouthpiece in the stem of said body portion having a flexible end to engage with the flexible sleeve so as to be expanded thereby to increase its grip within the body portion proportionally with its grip on the said sleeve thereby securing the lining, a flanged liner in said movable portion and a co-acting flange on the bowl of said detachable lining for attaching the movable portion to the body portion, and a spring locating sleeve within the stem of said body portion co-acting with the stem of said lining to locate and support said lining therein, as set forth.

14. A tobacco pipe with bowl and stem comprising an outer shell, said shell having a body portion and a movable portion with a complete ring-like top part forming the top of the bowl, means for locating the movable portion on said body portion, a detachable lining in said shell having a stem and a bowl, means for securing said lining by its stem and co-acting means on said movable portion and said lining for attaching the movable portion to the body portion, as set forth.

In testimony whereof I have signed my name to this specification.

SOLOMON FRAIS.