# THE MAKING OF A PIPE.

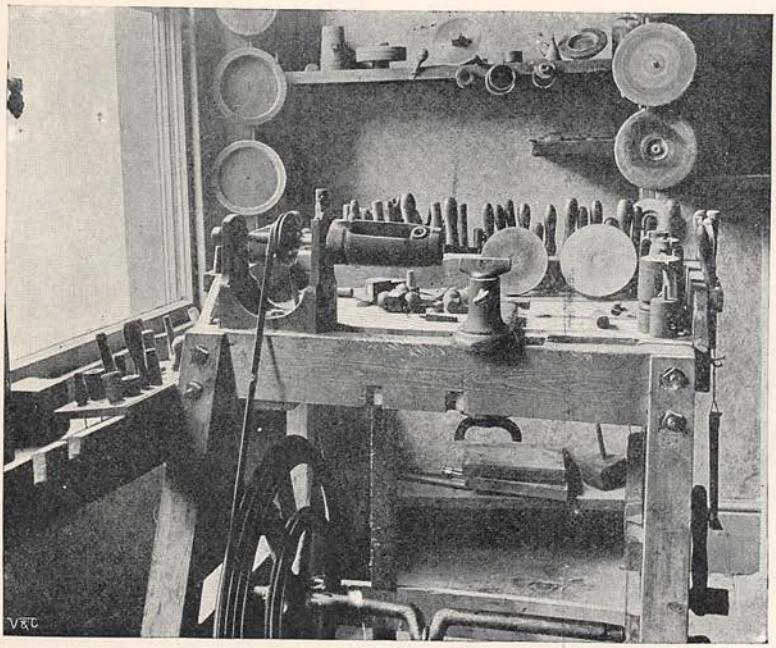
By Frederick A. Talbot.

*Photographs by C. Pilkington.*

OF what wood is your pipe composed? If this question were propounded to the many million smokers in the country, probably ninety-nine per cent. of them would unhesitatingly reply, "Why, briar, of course."

But the so-called briar pipe is not made of briar at all. This may sound rather paradoxical, but nevertheless, such is the case. "Briar" is a corruption of the French word *bruyère*, meaning heath, and the misnamed briar is in reality the root of the heather. This peculiar corruption, like many others, is solely due to the English tradesman, who, on finding the correct word *bruyère* somewhat difficult for the British tongue to negotiate, quickly reduced it to the more convenient "briar," and the wood has been known by that name ever since.

This heather thrives in great profusion on the rocky slopes of the Tuscan Alps in North Italy, and on the mountain sides in Corsica; a little is also to be found in Algeria, though this is not of a sufficiently high quality to be used for the best English pipes. A few years ago the plants flourished on the French side of the Jura Mountains, but this supply has long since been exhausted. The only briar to be obtained, at the present day, from France, grows in the Alpes Maritimes, near Nice, but even in this neighbourhood the root is so scarce that it would not pay the peasants to work it. Hence there is no such wood as "French briar," notwithstanding the frequent announcements to the contrary.



PIPEMAKER'S BENCH AND TOOLS.

The Swiss side of the Jura Mountains was formerly the home of snuff-box making, nattily turned from the root-wood of the box tree, which, as is well known, is extremely hard and durable. The demand for these snuff-boxes was so great that the box-wood was exhausted, and the peasants thereupon experimented with other woods found in the neighbourhood, so as to prevent the industry dying out from lack of the necessary material. Many root-woods were tried, but none were found to equal the heather in the essential characteristics. This wood, indeed, proved even more suitable for the work than the boxwood hitherto employed. After a time the natives manufactured their pipes from the newly discovered heather, and these rapidly displaced the crude clay pipes which had formerly been in vogue among them. When the Jura heather became exhausted the peasants had to seek pastures new in order to carry on their industry, and the

Tuscan Alps then came into prominence. Snuff-boxes, however, soon became obsolete commodities, and the peasants consequently devoted their whole attention to pipe-making.

In the early days the communal authorities of the various districts permitted the peasants to cut the tops off the heather plants for the purpose of making brooms, for which the bushy branches are eminently suited. This continual pruning had the effect of considerably developing the root of the plants, for the simple reason that the sap which would otherwise have nourished the branches was forced to expend itself upon the roots. At the proper season of the year the natives

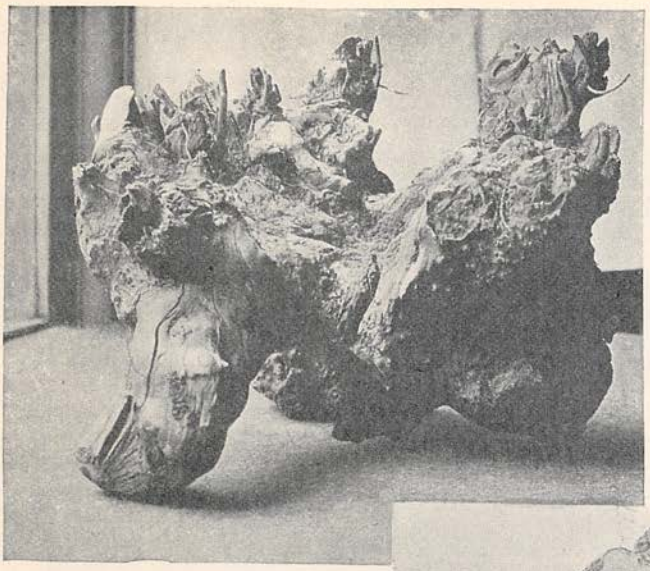

THE LARGEST BRIAR ROOT EVER FOUND; WEIGHT FIFTY-SIX POUNDS.

were allowed to dig up these roots. By this means vast tracts of land, hitherto only the abode of the heather and other wild plants, were gradually cleared and opened up for the cultivation of vines and other agricultural produce, the authorities congratulating themselves upon the fact that all this was being accomplished without the expenditure of a single penny for labour. In the course of time, however, it came to the ears of the communal officials that the peasants were growing rich on the sale of the heather roots, which had hitherto been regarded as so much useless vegetation. When they discovered the real purposes for which it was utilised, and the high commercial value of the wood, they promptly repealed all permissions that had been granted for the destruction of the *bruyère*. To-day a vastly different state of things exists; the peasants have to pay to the authorities a certain sum for permission to clear the heather from a certain tract of land.

It must not be supposed, however, that the ordinary, wild, straggling heather root is of any use for the manufacture of pipes. The plant has to be cultivated as carefully as other agricultural produce. The branches above the ground constantly undergo a severe pruning, while the tendrils of the roots, or *ébauchons* as they are called in the vernacular, are also kept cut back. The result is that the main root is rather bulbous in form, as may be seen from one of our illustrations, and this is what is required for pipe manufacture.

Previous to the year 1883 there was scarcely a single briar pipe manufactured in England. They were all foreign made goods. In the latter part of that year Mr. J. S. Weingott, the well known tobacco merchant of Fleet Street, conceiving the possibilities that lay in such a non-competitive and unopposed field, determined to manufacture pipes in England for the English consumer. His enterprise, at first, was regarded askance by others in the trade, while many of the preternaturally sage prognosticated disaster. Undeterred by these ominous forebodings, Mr. Weingott started his industry, and although it was an uphill struggle at first, he has now one of the largest pipe factories in the country, and has a large colonial export trade. "Only sixteen years have elapsed since I started my factory," remarked Mr. Weingott, "and yet to-day the industry has grown to such proportions that the men employed in this trade throughout the country have instituted a Pipemakers' Union." This is clearly an instance of what enterprise and energy may attain, since Britain has won a strong industry from the foreigner.

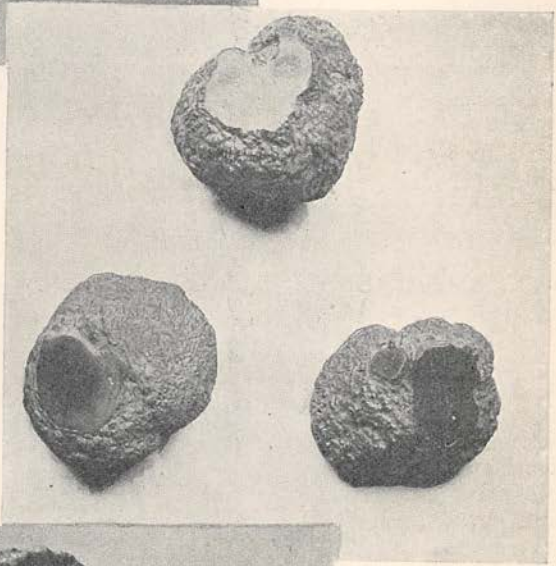
Probably few smokers realise the amount



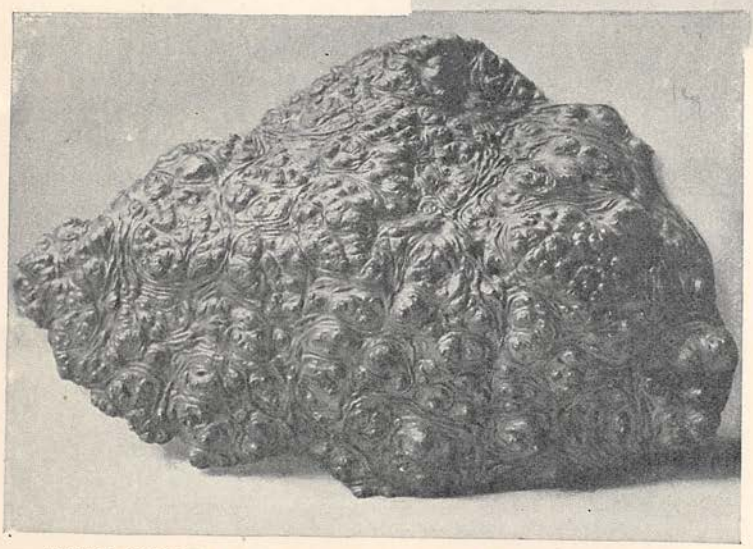
A FINE SPECIMEN OF HEATHER ROOT AS PULLED FROM THE GROUND.

of labour expended upon the manufacture of a conventional briar pipe of the bulldog pattern.

"The pipe essentially consists of two pieces," said Mr. Weingott, "the bowl and the mouthpiece. The bowl of the pipe is first made, and then the other parts fitted to it." This is where the English pipe is so vastly superior to the foreign-manufactured article. In England the entire pipe is finished by one man, who is thus able to ensure correct and tight fitting of the various parts, so that the pipe when finished possesses a beautifully symmetrical outline. In the case of the foreign article, each man makes a different part—by the gross or thousand, it may be remarked *en passant*—and thus when it comes to the final fitting up the whole article has a disappointing, hotch-potch appearance, though strenuous endeavours are made to cover up the bad workmanship by attractive mountings.



LARGE SPECIMENS OF BULBOUS BRIAR ROOTS.

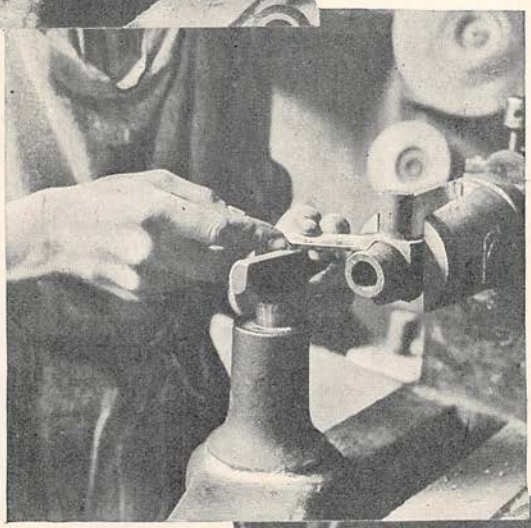


SECTION OF BRIAR ROOT, SHOWING FORMATION OF BIRD'S-EYE GRAIN.

"When the roots have been dug up," said Mr. Weingott, "all the useless parts are cut away, so as to reduce freightage charges in shipment, and are divided up into small blocks of various shapes and sizes; they are then scalded, some of the clayey soil in which the roots

TURNING THE BLOCK OF BRIAR.

grew being put into the water with them. This drastic treatment is to drive out most of the sap. On their removal from the scalding bath the blocks are stacked and dried and finally sorted into varieties of shapes and sizes, each variety being known by some trade term.



SHAPING THE BOWL.

"The long, thin sections of briar are sent to the French market, because the Frenchman, who smokes at leisure, prefers a long pipe, while the Englishman, who smokes everywhere and under any circumstances, prefers a short, thick, stumpy pipe; consequently the small, thick blocks are invariably reserved for the English market."

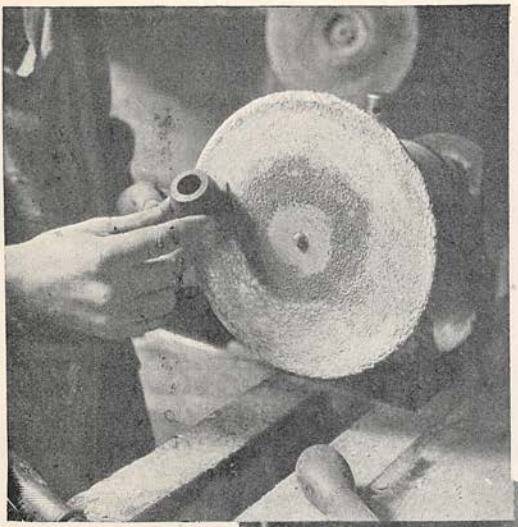
The Tuscan briar is despatched from Leghorn, which port is most convenient to the district where the heather is grown. The major portion of the Corsican heather is also sent to London *viâ* Leghorn. The Corsican briar, except for a slight difference in colour, is equal to the Italian product in every respect, and the manufacturer is equally satisfied with either briar.

"What is the usual number of pipes made out of each root of briar?"

"Two, as a rule; but then we have to cut out the pipes very dexterously from the block, so as to avoid waste. Many briar roots, however, are only sufficiently large to enable one bowl to be cut. The best pieces of briar are those that have grown in clefts of rock. In these cases, owing to its inability to burst the rock or to extend its roots, it is more perfectly formed, while such stunted growth also increases the toughness and durability of the wood."

When the blocks arrive at the factory they are spread out to dry, and covered with sacks to keep the atmosphere away from them and to prolong the drying as much as possible. The blocks are dried slowly and without applied heat, and consequently are not so liable to split or to warp. Therefore the longer they take to dry the better; but, on the other hand, they must not be over-dried. The blocks are then sorted out into sizes according to the various pipes that are required. After this

ROUNDING THE STEM.



ROUGH GRINDING AWAY OF PARTS THAT CANNOT BE TURNED.

classification they are ready for the pipemaker.

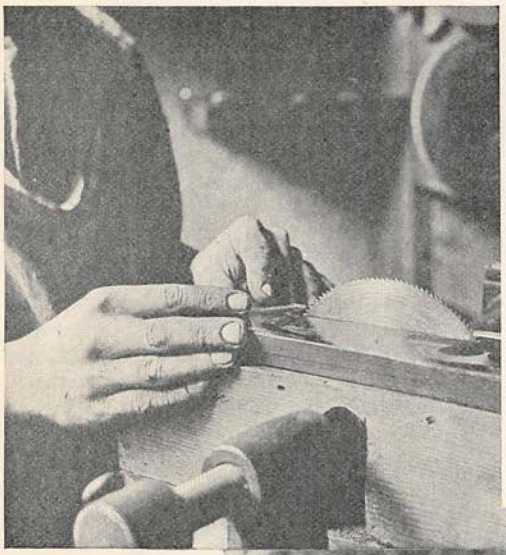
The lathe plays a very prominent part in the manufacture of the pipe. The operator takes the rough block of briar and firmly secures it in a kind of wooden clamp, technically known as a "chuck." The wheel whirls round, the workman deftly manipulates his chisels, and the upper part of the block rapidly assumes the contour of the bowl. The cavity is cleanly and quickly hollowed out, the bore drilled, and the stem of the pipe duly rounded. Of course there are some parts of the pipe that cannot be turned, and these are removed by grinding down upon, first, a rough emery board, and afterwards a circular steel file, affixed to the lathe in place of the "chuck." The final operation is the polishing of the bowl with powdered pumice-stone. It is almost incredible the rapidity with which a pipe is fashioned, the article being turned out complete in a very few minutes.

"The most skilful artisans in this trade," remarked Mr. Weingott, "are either the Austrians or the French. The pipemakers are a very select, small body, and observe every precaution to prevent their trade being learned by outsiders. They will have no apprentices, and if I introduced any boys into my factory I should have to pay them the Union minimum wage, which is two pounds a week. On the other hand, the workmen are clever, and they earn high wages."

When the bowls have been turned they are stored away in order to become thoroughly seasoned. A good bowl ought to have at least two years' seasoning before proceeding with the pipe. "In one or two special cases," said Mr. Weingott, "I have allowed the briar as long as eight years in which to season. At the present moment I have 30,000 pipes now seasoning. As a rule, we keep on adding the new bowls to one end, and take away the necessary pipes from the other end of the seasoning stock. The bowls darken a little in this process, and when taken away to be finished one or

SMOOTHER GRINDING ON STEEL DISC

POLISHING WITH POWDERED PUMICE.



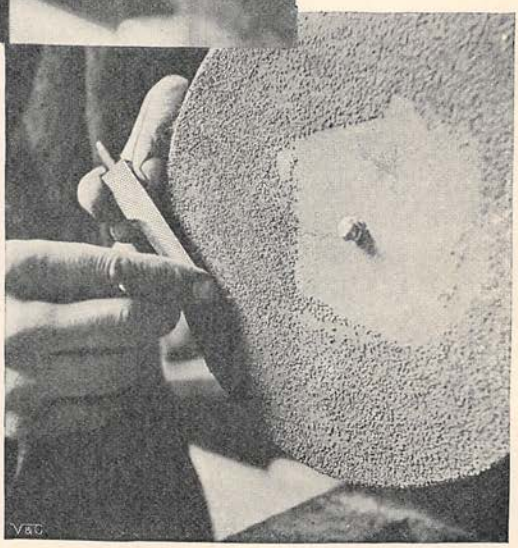
CUTTING SHEET VULCANITE FOR MOUTHPIECE.

two will be found to have warped. If the warp has taken an outward direction—that is to say, the pipe has bulged—it is immediately relegated to the furnace to be burned, for it is absolutely of no further use; but, on the other hand, if the bowl has warped inwards, strange to say, the pipe has become stronger and more durable, and only wants, perhaps, turning a little smaller to make it perfect in shape once again."

The bowl of the pipe finished, the operator next devotes his attention to the mouthpiece. This may be of amber, vulcanite, horn, or Whitby jet, according to the quality of the pipe, but vulcanite is the most common substance for this purpose. This is a composition of indiarubber and sulphur. The materials are added together when melted to boiling point and then pressed out into large sheets varying from about three-eighths to seven-eighths of an inch in thickness, by hydraulic power registering a pressure of something like sixty tons per square inch. The indiarubber has lost all its elasticity when transformed into vulcanite, the composition is not inflammable, and, what is more important, is not readily broken, owing to the abnormal pressure it has undergone in the hydraulic press.

The vulcanite is cut into long, narrow strips sufficient in thickness to make the necessary pipe. The "push," that is the part which slides lightly into the stem, of the briar—all Mr. Weingott's pipes are fitted in this manner, instead of the two parts being screwed together—is first carefully turned. This in itself is a delicate operation, as the "push" has to be turned to a perfect exactitude, so that the mouthpiece shall neither slide too loosely nor too tightly into the stem of the bowl. Then the stem of the mouthpiece is ground and filed to the requisite shape, the bore drilled, and the "nib" at the end which is to be placed in the mouth deftly fashioned. When the mouthpiece is fitted to the bowl the completed pipe is polished upon the "buff," which is composed of a great number of circular pieces of calico secured upon an

ROUNDING THE "PUSH."



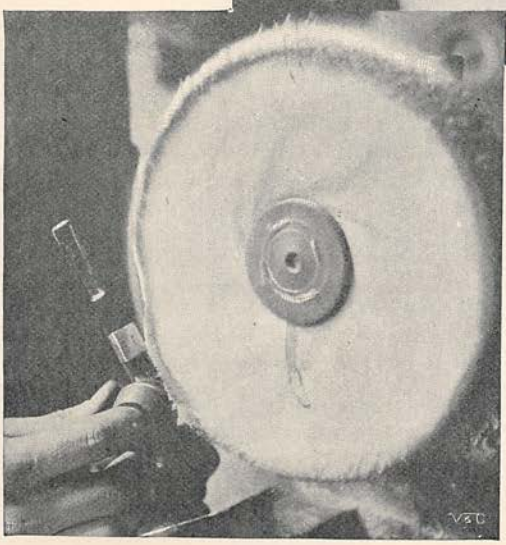
GRINDING STEM INTO ROUGH SHAPE.

axletree. The edges of the discs are frayed, and this soft surface affords a better polishing medium than even the soft chamois leather.

"In the case of the German and other foreign cheap pipes," commented Mr. Weingott, "the vulcanite mouthpiece is not turned, but moulded, and only permitted to contract in the natural course of things while hardening. What is the result? The smoker in a short time bites into the mouthpiece, and the soft, pulpy vulcanite leaves a nauseous taste in the palate. To give you an instance of the vast difference in value between the moulded and the turned class of goods. The mouthpieces for the foreign-manufactured common Army pattern pipe cost from eightpence to fourteenpence per dozen; the same article turned from compressed vulcanite costs from eight and sixpence to nine and sixpence per dozen, because of the amount of hand labour involved in its manufacture." Certainly this striking difference in prices is sufficient to prove the immense superiority of English over foreign goods.

FILING DOWN INTO SMOOTH SHAPE.

POLISHING WITH POWDERED PUMICE.



FINAL POLISHING OF COMPLETE PIPE.

Even the little silver band covering the fitting of the mouthpiece into the stem of the bowl has to pass through six stages of manufacture before it is finished. The workman takes the little strip of silver, hall mark outwards, and roughly solders the ends together. It is then rounded to eliminate all dents and bruises, the end plate is fixed in position, filed down, and the band finally polished. Mr. Weingott, picking up a finished silver-mounting, said, "This is only a simple operation, as you have seen for yourself, but no foreigner can perform the operation so neatly as an Englishman. All foreign pipes that are silver-mounted have to have that part of the manufacture performed in London, for the English silversmith has no one in the world to equal him at that work. If you go into any jewellers' shop in Paris, Berlin, or any other Continental city, you will find that the English goods are the finest, are the most in demand on account of their beautiful workmanship, and are

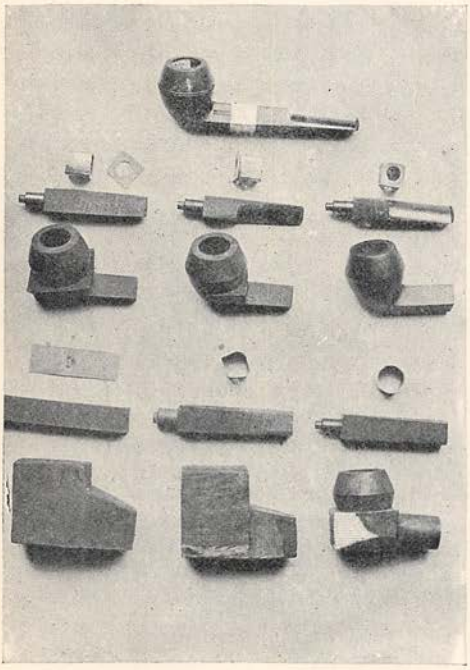
also the most expensive articles to purchase. Foreign pipes, if intended for export, are first sent to England to be silver-mounted, returned to the country where they were manufactured, and then shipped to their destination."

"Do you have many pipes spoiled while passing through the various stages of manufacture?" I inquired.

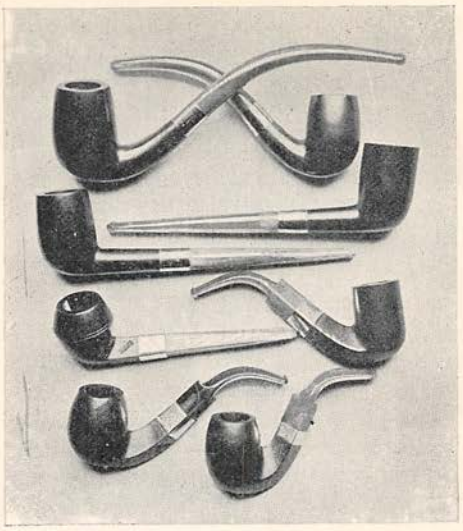
"No," replied Mr. Weingott. "You see, the briar is extraordinarily hard, and the workmen are so skilful at their work that the pipes rendered useless through mishaps in manufacture are very few and far between. But yet there is a tremendous amount of waste.

"When the blocks arrive over here they are at once sorted. Out of one gross of blocks I rarely ever get more than three or four pieces of wood good enough for the very finest class of pipes; about a dozen good briars for fine quality pipes; and perhaps as many as four dozen pieces of wood for the ordinary everyday pipe. The remaining seven dozen pieces of wood are thrown into the furnace, and, I might mention, help considerably to generate the necessary steam power for the machinery. The prevailing defect, I may mention by the way, is generally in the form of a crack in the wood."

"But cannot that crack be artificially stopped with some material?" I asked.



THE SEVEN STAGES OF A PIPE.



FINE GOLD-MOUNTED BRIARS, RANGING FROM ONE TO FOUR GUINEAS EACH.

"By unscrupulous cheap and foreign firms; but the Englishman is a good judge of a pipe. He detests flaws of any kind. I used to sell these defective blocks of briar at a penny per piece, and have sent away as many as 40,000 condemned briars at a time, but now I burn them all. The briars were sent abroad, and the cracks and flaws stopped with putty or some other composition, and then steeped in a strong solution of permanganate of potash, which deeply coloured the wood and made the defect invisible except on close inspection. All those briars you see of chestnut colour have passed through the permanganate of potash bath or some other dye, and are then varnished, and you may rest assured that there is a defect somewhere—they would not be that colour if it were not so, because natural briar, although it becomes dark with age and exposure, displays distinctly the natural grain."

"What is the average life of a briar pipe?"

"You may take it for granted that a briar pipe will last you as many years as it costs you shillings. The briar pipe that is mostly in demand is that with a bowl cut the straight way of the grain. This, I may tell you, is not the most reliable kind of pipe, as the sudden expansion by the heat, and contraction of the wood when you stop smoking, cause it to split in a short time. The most durable briar is that which is cut the crosswise of the grain, showing what is commonly known as the 'bird's-eye' grain. This is practically everlasting as regards wear."