

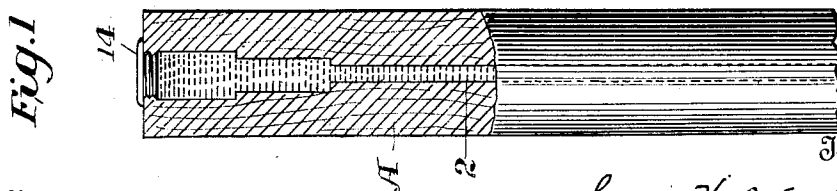
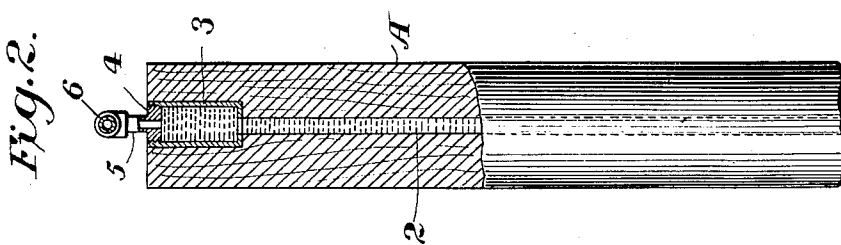
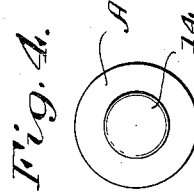
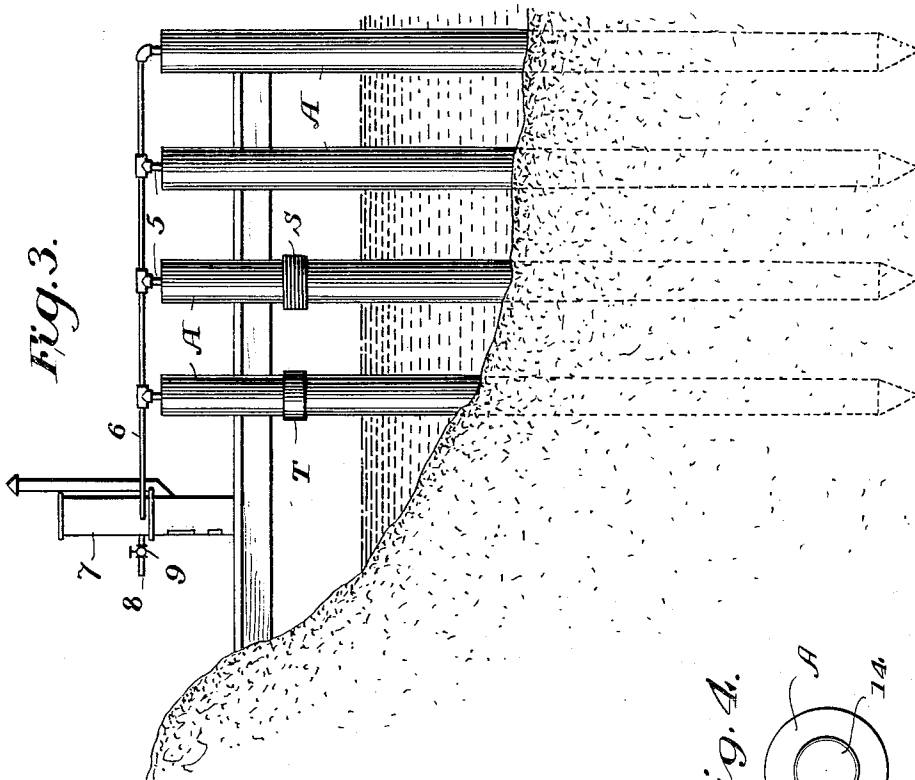
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PILE.

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968,214.

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UNITED STATES PATENT OFFICE.

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PILE.

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To all whom it may concern:

Be it known that I, GEORGE X. WENDLING, a citizen of the United States, and resident of San Francisco, California, have invented certain new and useful Improvements in Piles, of which the following is a specification.

My invention relates to means for preserving piles, and to this end it consists in providing piles having channels for the reception of preservative material, with certain supply reservoirs whereby to maintain the proper amount of material up to a point above the water line, and in means for preventing loss from the splitting of the piles on the upper ends, and for supplying the same simultaneously to a number of piles, as illustrated in the accompanying drawing, in which:

Figure 1 is a sectional view showing sufficient of the upper part of a wooden pile to illustrate my invention; Fig. 2 a like view showing the same in connection with the use of metallic reservoirs; Fig. 3 a side view illustrating the means for filling a series of such reservoirs; Fig. 4 is a plan view of the pile shown in Fig. 1.

The pile A is of any suitable character of timber and is pointed at the lower end or provided with a metallic point and driven as usual. The pile is bored through from the top to any suitable distance from the lower end, forming a channel 2 for the reception of the preservative material or liquid, and this channel instead of being continuously of the same diameter may increase in diameter toward the top as shown in Fig. 2, or, if desired, this increase may be made at two points as shown in Fig. 1. In any case the increased diameter of the channel toward the top affords a reservoir or receptacle in which the preservative material is stored. Where the channel is of limited dimensions and of uniform diameter the leakage or evaporation will result in the preservative material escaping from the channel until the portion in the channel is below the water line which is the point where the greatest amount of protection is secured, but by enlarging the channel at the upper end and storing a surplus amount of material at this point any leakage or loss is compensated for and the contracted part of the channel remains at all times filled

to the extent necessary to insure the complete preservation of the pile.

To avoid losses which may result from the splitting of the upper end of the pile from the effects of the sun, etc., I prefer to form the reservoir within a casing 3, which is preferably inserted within the enlargement of the channel and is open, or has an opening, at the lower end so as to communicate with the channel and is closed at the upper end by a cap 4, preferably a screw-cap. Where the casing is not employed the cap 14 may screw directly into the upper end of the enlargement of the channel, as shown in Fig. 1. By forming the reservoir within and at the upper end of the pile a cheap and reliable structure is obtained, since it is only necessary to bore the pile to a larger diameter to form this reservoir. The reservoir is closed by the cap 4 which leaves the upper end of the pile clear.

Where it is desirable to supply a large number of channels with the liquid preservative at one time this may be done by providing each of the screw-caps 4 with a hollow neck 5, all of the necks communicating with a common pipe 6 leading to a reservoir 7 into which the material may be forced under pressure by a pump through a supply pipe 8, the cock 9 serving to close the supply pipe after the proper amount has been forced into the different channels.

In some cases it may be necessary to force the liquid into the channels in the piles under a very high pressure, or it may be necessary to use piles of a small diameter or with large recesses so that there is danger of splitting either from the internal pressure or from the limited thickness of the walls of the piles, allowing the preservative material to escape. To prevent such results I apply to the pile at proper intervals, surrounding bands which may be metallic bands shrunk on as shown at T, or the band may be of wire wound around the pile either continuously or at intervals as shown at S.

The preservative material employed may be of any suitable character, but preferably, in some cases, is crude petroleum, and in order to insure the ready flow of the latter the same may be heated to any desired temperature through the medium of a heater arranged below the reservoir 7, as shown.

Without limiting myself to the precise

construction and arrangement of parts shown, I claim:

5 A wooden pile provided with a longitudinal channel extending from the upper toward the lower end and closed at the bottom, the channel being enlarged at the upper end to constitute a supply chamber within and at the upper end of the pile, and a

closing cap at the upper end arranged to leave said upper end clear.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE X. WENDLING.

Witnesses:

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