

April 24, 1928.

1,667,574

J. R. TURNER

ART OF SMOKING FISH FILLETS

Filed Oct. 29, 1927

Fig. 1.

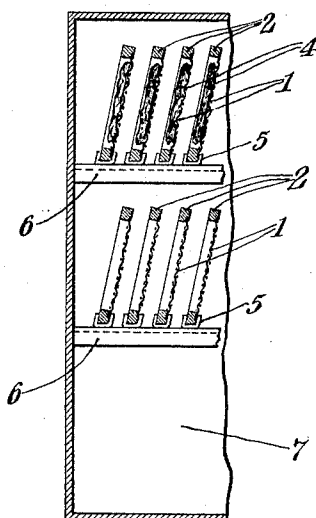


Fig. 2.

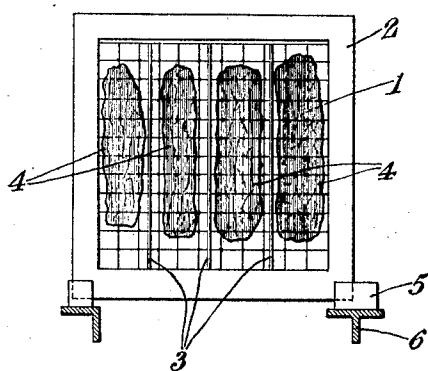
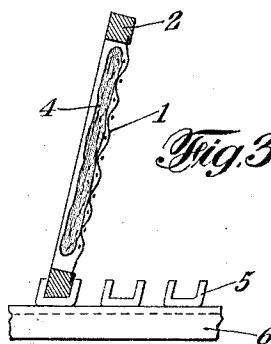


Fig. 3.



Inventor
James R. Turner
By his Attorneys
Prindle, Wright, Mead & Dean

UNITED STATES PATENT OFFICE.

JAMES R. TURNER, OF JERSEY CITY, NEW JERSEY.

ART OF SMOKING FISH FILLETS.

Application filed October 29, 1927. Serial No. 229,544.

The invention relates to the production of smoked fish fillets, a product which heretofore has not been put on the market by others in so far as I am aware, due to the difficulty of adequately supporting the tender fish pieces without injury or defacement during the smoking treatment, and yet exposing all parts of them adequately to the fumes.

10 The primary object of the invention is to treat the fish fillets in such manner that properly smoked filleted pieces may be produced without injury to or marring of the flesh, and within reasonable limits of expense.

15 I have found it to be practical and satisfactory to deposit the fresh filleted pieces upon open-work backs or screens of fine wire or the like, while the latter are in substantially horizontal position and then after permitting the pieces to "set" for a short time against the screens, to tilt the latter up at a relatively steep angle and subject them to the action of rising smoke fumes, with the result
20 that the fumes, owing to the relatively steep inclination of the back or screen, act substantially uniformly on both sides of the filleted pieces and also penetrate sufficiently into the parts of the fillets which are in
25 contact with the screen to avoid insufficiently smoked surfaces on the fillets where they are in contact with the screen.

30 The fresh fillets appear to contain a certain amount of glue-like substance which
35 causes them to adhere to the supporting screen after being in contact therewith for a few minutes, without objectionably impressing or reproducing the pattern of the screen on the side of the fillets in contact
40 therewith, whereby after the fillets have "set" as above described, the screen may be tilted up to an angle of more than 45° without the fillets slipping out of position. This fairly steep inclination permits the rising
45 smoke fumes to act substantially uniformly on both sides of the fillets.

50 The fillets will then be subjected for twelve to fifteen hours or more to the smoke fumes in a smoking chamber through which the fumes rise up vertically as above described.

55 I have also found that after the smoking treatment is completed the fillets may be removed from the screens without injury, even though substantially glued thereon on account of the adhesive liquid of the fish

hardening onto the screen during the smoking treatment, by chilling the fillets to about 50° F. or under, while still carried by the screen, and then stripping them off.

In the drawings—

Fig. 1 is a sectional view showing several screens supported in the smoking house in position for the smoking operation.

Fig. 2 is a front view showing on an enlarged scale one of the screens and its support.

Fig. 3 is a section on line 3—3 of Fig. 2.

In carrying out the invention I may employ a screen 1 of thin wire, as shown in Fig. 2, for example, ordinary chicken wire of $\frac{3}{4}$ inch or 1 inch mesh, which is carried by a suitable frame 2. Preferably a plurality of partitions 3 are provided across the frame and the fillets 4 respectively placed in the compartments thus formed. As above stated, the screen 1 will be placed in substantially horizontal position while the fillets are being placed thereon, and will be permitted to remain in horizontal position for a few minutes until "set". The fillets, however, do not sink through the interstices of the screen to such an extent as to reproduce the pattern of the screen on the fillets, or otherwise deface them in such a way as to render them unmarketable.

After the fillets have become "set" as above described, the screen may be tilted up at a fairly steep angle as above described, and held in this position during the smoking treatment. As shown in Fig. 2, a plurality of the screens 1 are placed side by side in rows at different levels, the frames 2 being detachably supported at their lower edges by U-shaped clips 5 on cross pieces 6 as set forth in my copending application Ser. No. 180,598, filed April 2, 1927. The smoking operation is preferably carried on in a closed chamber 7, having sawdust or the like smouldering at its bottom, whereby the smoke fumes rise up evenly and quietly between the adjacent screens. The inclination of the screens should be at least in the neighborhood of 45° and preferably more in order that the fumes may act substantially uniformly on both sides of the fillets.

After the smoking operation is completed which usually takes fifteen hours or more, the screens are removed from the smoking chamber 7, at which time it will be found that the fillets are quite securely stuck to the screen, and I then chill the fillets, still car-

ried by the screens, in any suitable manner, to at least 40° or 50° F. and preferably down to the freezing point of water, after which I have found that the smoked fillets may be stripped from off the screens without injury.

Smoked fillets may thus be produced which are uniformly smoked on both sides and without objectionable injury to or marring of the surface of the fillet which is in contact with the screen.

While a specific procedure has been described above it will be obvious that many changes may be made therein without departing from its essentials as set forth in the appended claims.

I claim:

1. The process of producing smoked fish fillets, which comprises placing fresh fillets upon a screen and "setting" them thereon

while the screen is in substantially horizontal position, then tilting the screen to a steeply inclined position and passing smoke fumes upwardly past both sides of the screen.

2. The process of producing smoked fish fillets, which comprises placing fresh fillets upon a screen and "setting" them thereon while the screen is in substantially horizontal position, then tilting the screen to a steeply inclined position and passing smoke fumes upwardly past both sides of the screen, chilling the fillets while still carried by the screen to a temperature of about 50° F. or under, and then stripping the fillets from off the screen.

In testimony that I claim the foregoing, I have hereunto set my hand this 19th day of October, 1927.

JAMES R. TURNER.