

PATERSON 35 mm *Ratchet Spiral Loading* DEVELOPING TANK



FIG. 1

Fig.1 shows the various parts of the Paterson Tank. From left to right they are the tank lid, body of tank with the agitator knob in front, and the new Paterson Spiral. (Pat. Pend.). The spiral consists of two halves, held together by a stainless steel clip. They are easily separated for cleaning by simply pulling them apart, and it will be noticed that when assembled, they can be rotated on the central hub and are provided with small ratchet teeth at intervals - the secret of the unique loading of the Paterson Spiral.

INSTRUCTIONS FOR LOADING

1. Cut off the half width leader of the film and round off the corners of the cut end as illustrated (fig. 2). Cut **BETWEEN** the film perforations as shown—not through them. Straighten out the curl at leading end of film by bending it between the finger and thumb a few times. **DO NOT** double over the leading end of film as is sometimes recommended for other tanks.

2. Remove tank lid and take out spiral. Rotate the two halves of the spiral until the entrances to the spirals are opposite one another and facing towards you.

3. **IN THE DARK ROOM** insert the end of the film into the spiral until it engages in the first ratchet tooth (about 1-2 inches).

4. Hold the spiral as shown (fig. 3) allowing the coil of film or cassette to rest on the left hand. A cassette should always be held as illustrated, gripping it securely between the ball of the left thumb and the second or third finger. Take care that the finger does not foul the spool end projecting from the cassette which must, of course, rotate as film is withdrawn. A coil of film should be allowed to rest on the left palm. Never allow the

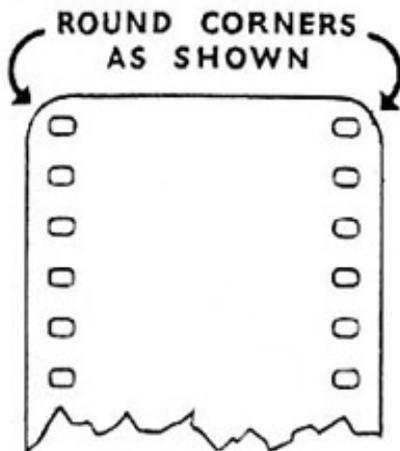


Fig. 2

cassette or coil of film to hang free and dangle towards the floor. It is one big advantage of the Paterson Tank that the film passes straight from the cassette or coil into the spiral without the danger of its being damaged by handling or scratching.

5. Now simply oscillate the two halves of the spiral backwards and forwards **IN OPPOSITE DIRECTIONS** through about a quarter turn. The film will be drawn directly from the cassette or coil into the spiral by a ratchet

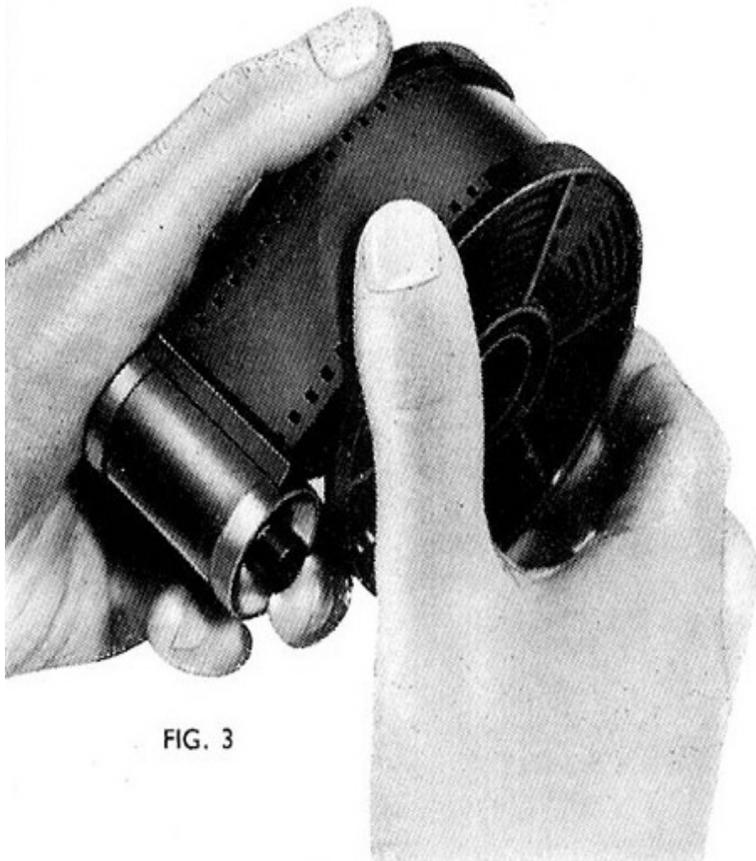


FIG. 3

action, and the entire length will travel in quite easily. Turn the spirals smoothly and steadily, and reverse the movements of the spirals when resistance is felt.

Do not use force. Note especially the position of the thumbs (fig. 3) which overlap the edges of the film and are placed immediately in front of the entrances to the spiral. Do not move the thumbs from this position during loading. This is important as they serve to guide the film into the spirals and also prevent the spirals from being

rotated too far during the backward and forward movements.

SPECIAL NOTES

(i) THE LEFT THUMB SHOULD REST LIGHTLY ON THE BACK OF THE EDGE OF FILM DURING LOADING.

Some films, especially if tightly wound into a smaller diameter than that of a normal spool, may tend to slip back in the left-hand half of the spiral during loading, This is corrected at once by allowing the left thumb to rest lightly on the back of the film so as to prevent it slipping back, and ensures maximum ease and speed of loading. When loading wet film, as for example in colour work, this precaution is usually unnecessary.

(ii) The spiral is rather longer than a normal length of film but the film should always be loaded into the spiral as far as it will go. This causes the coils of film to lie with the back of the film against the spiral grooves and ensures maximum access of solutions to the emulsion surface.

6. The loading procedure described above will be found extremely simple in practice. Since, however, the principle of the Paterson Tank is entirely new a preliminary trial with an old or exposed length of film spooled in a cassette is advisable, and will make the operator perfectly at home with his new instrument.

7. After loading, replace spiral in tank and snap on the lid. giving it a twist until it grips the main body firmly. All other operations can now be carried out with perfect safety in full daylight.

8. Pour in developer (8 ozs. or 230 ccs.) through central hole in lid. Insert agitating knob and twist rapidly backwards and forwards several times to dislodge any airbells from the film. The film is perfectly safe in the spiral. It cannot move backwards out of the spiral as sometimes happens with other tanks. Agitate periodically during development. A thermometer may be inserted through central hole of agitator knob to check solution temperature if desired.

9. After the required time, pour out developer through aperture at side of lid. For pouring solutions back into stock bottles, the agitator knob forms a small but useful funnel. (Another exclusive Paterson feature). Before pouring in the fixer, rinse film by filling tank with water and after this process emptying again. Then pour in fixer, leave for the required time, agitating as before. Pour out fixer and wash film by placing the tank

under a tap and allowing water to flow in through central hole in lid.

REMOVING FILM FROM THE SPIRAL

To remove the film from the spiral allow the spiral to rest in the left hand, and with the right hand arch the free end of the film by bending the two edges together as shown (fig. 4). The whole film will then run easily out of the spiral which is allowed to rotate in the left hand as the right hand pulls gently on the end of the film. If the film perforations tend to catch on any of the ratchet teeth, do not force the film out but simply rotate the half of the spiral carrying the tooth backwards slightly. when it will at once disengage from the film.

COLOUR PROCESSING

The Paterson Tank is ideal for the colour worker, since the unique loading method makes it perfectly easy to re-load a wet film into the wet spiral after re-exposure to light during processing. Simply insert the end of the film into the spiral and

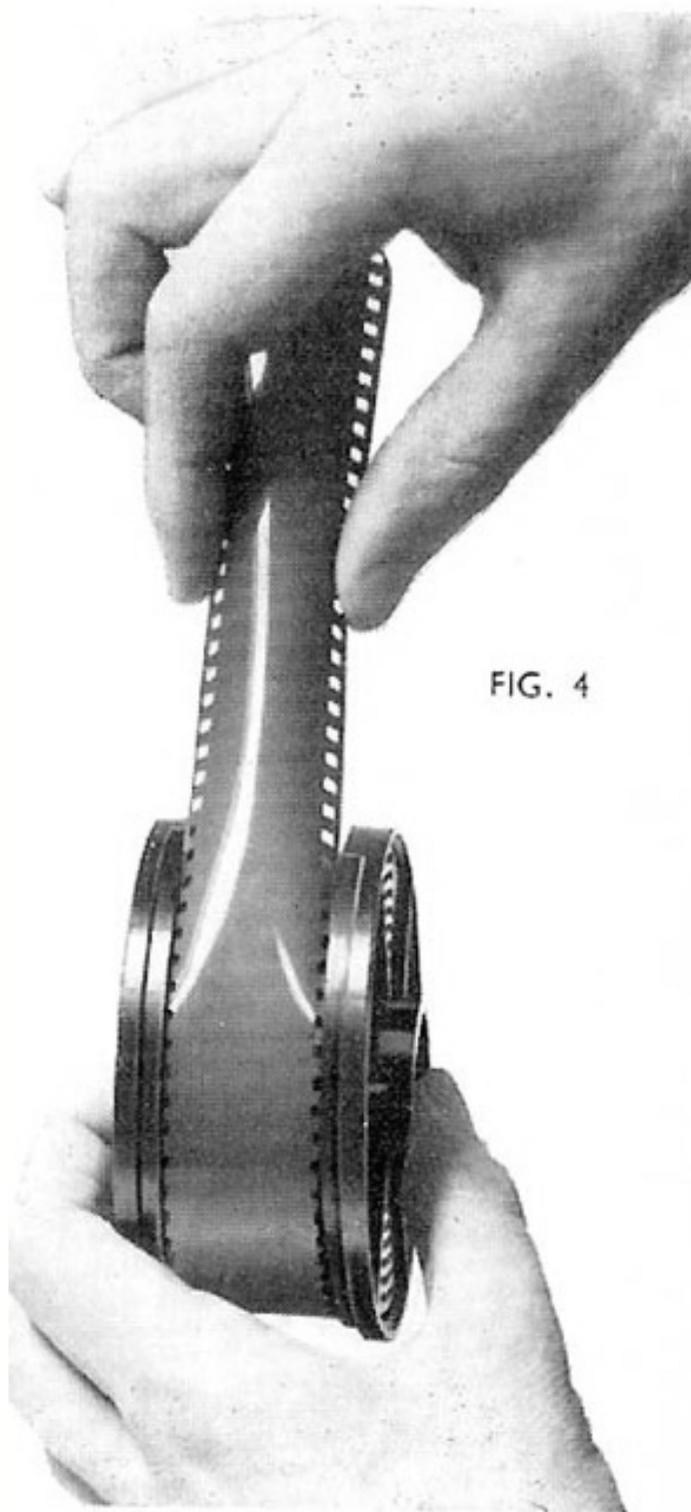


FIG. 4

load in the usual way, allowing the wet film to hang free until it enters the spiral.

SOLUTION ECONOMY

It will be found that seven ounces (200 ccs.) of solution is just sufficient to cover the film in the tank, and this amount may be safely used when the utmost economy of solution is desired, provided that the graduations of the measure employed are accurate and the tank kept on a flat plane.

CLEANING THE TANK

After removing film, separate the two halves of the spiral by pulling them apart, rinse in water, and snap them together again. Shake off surplus water and the spiral is ready for the next film. It is unnecessary to dry the spiral thoroughly as with other tanks before loading a new film but if the tank is not required for immediate use the various parts should be separated and allowed to dry thoroughly before being put away.

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