Clinical and other Notes

The cups cannot get mixed up; they are all held level, and the indicator in its socket in the frame is safe from being knocked over, an annoying accident to occur miles from a laboratory. A long narrow stock bottle is shown in the diagram.

Fig. 2.—Case closed, showing frame keeping cups and bottles in position.

The cost of materials is about 4s. 6d., and the increase in size and weight, without the tablets, over the present case is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present case</td>
<td>9\frac{1}{4} in. × 5 in. × 4 in.</td>
<td>2 lb. 14 oz.</td>
</tr>
<tr>
<td>Modified case</td>
<td>15 in. × 6 in. × 4\frac{1}{4} in.</td>
<td>5 lb. 3 oz.</td>
</tr>
</tbody>
</table>

DISPOSAL OF LITTER IN RAZMAK, WAZIRISTAN.

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Razmak is a perimeter camp at an altitude of 6,500 feet in the centre of Waziristan. The camp is situated on a plateau which slopes at a gradient of about 1 in 20 to a deep nullah.

In the summer the maximum temperature does not reach 90° F., with an almost daily rainfall; in the winter there are frequent falls of snow.

Litter from 2,700 horses and mules, 550 cattle and 700 goats and sheep has to be disposed of, amounting to 110 Army transport cart-loads, approximately 20 tons daily.

Owing to climatic conditions the disposal of this litter is not easy. No assistance is received from the local inhabitants, who are unwilling to remove it for agricultural purposes.
In the past each unit was responsible for the disposal of its own litter. A site about 400 yards by 100 yards (8 acres) was required for the purpose. This area was far too large to permit of adequate cleanliness being maintained. The incinerators, improvised from whatever materials were available, were of every shape, size and type. There was little system of drainage, so that rain-water from units' areas flooded those of other units. This was found most unsatisfactory. Control over no less than 31 different areas was almost impossible. Excessive fly-breeding was inevitable in spite of every care.

With a view to improving this state of affairs, the scheme outlined below was evolved:

(a) Control.—The burning of litter was centralized and carried out by the Conservancy Establishment, under the direct control of an Assistant Surgeon.

(b) Site.—A fresh site, as level as possible, was selected. This was marked out into three areas 70 feet by 220 feet, the length being across the slope of the ground, and carefully graded to permit rain-water to drain off effectively, but yet not at such a rate as to erode the ground. Each area was rolled by a heavy roller to consolidate it and the surface plastered with clay.

(c) Roads.—Roads 18 feet wide were made round each area.

(d) Drainage.—Each area and each road was provided with drains so that no rain-water washed across other than that which actually fell upon it. Bridges were provided wherever necessary.

(e) Incinerators.—A type of incinerator was made as follows: Eight angle irons 6 feet long are driven vertically 2 feet into the ground in the form of a rectangle 6 feet by 4 feet, one angle iron being at each corner and one in the centre of each side. Three feet from the ground two 7-foot angle irons are bound with wire horizontally to the longer side of the rectangle, and five 5-foot angle irons laid at right angles horizontally across these at even distances, being bound with wire to them and, where next the uprights, to these also. The whole thus forms a frame to receive a basket. This
basket is made from a sheet of expanded metal (mesh 1 inch by 1 inch) 8 feet by 6 feet, of which the corners are suitably cut and the sides folded to form a tray 6 feet by 4 feet by 1 foot deep, the corners being bound with wire. The basket thus accurately fits into the frame. A row of thirteen of these incinerators, each 10 feet apart, is placed down the centre of each drying area.

(f) Lay-out.—The whole area is laid out as shown in the sketch below.

(g) Organization.—All litter is brought by units' carts twice daily at specified times. A superintendent is present to direct them and to indicate where they are to dump their litter. All carts take the general circular course indicated by arrows in the diagram above, thus avoiding confusion and delay.

The carts first arriving proceed to the side of the area farthest from the entrance, depositing their litter in order till that side is covered; carts subsequently arriving proceed to the near side of that area, till that also is covered.

Each drying area is similarly brought into use in rotation.

The attendants spread the litter out to dry immediately it is deposited by each cart, thus ensuring that the next cart dumps in a suitable spot and that the distribution is even.

When depositing litter, the rear of the cart is backed to the drying area so that litter can be shot directly into the area. On no account are carts allowed to leave the road to go upon the drying area.

The litter is spread thinly and burnt on the incinerators as soon as dry enough. When the area is cleared, it and the surrounding drains are at once carefully swept and the sweepings burnt. The area is then left
vacant till again required. All areas are used equally, so that each has in turn an opportunity of being referred to the sun and repaired.

The incinerators are raked thoroughly four times a day, and all ash falling through is immediately swept from underneath, collected on one side, and removed in a special cart twice daily.

The results of the above system of incineration are as follows:

(a) The daily 20 tons of litter are now disposed of effectively each day. (Opportunity of doing so in snow has not yet arisen, but difficulty is not anticipated.)

(b) The area to keep clean and to prevent fly-breeding is reduced from 8 acres to 1 acre.

(c) The personnel employed on litter-burning duties is reduced from 63 fighting men to 21 conservancy sweepers.

(d) The whole area is scrupulously clean.

We gratefully acknowledge the valuable assistance and suggestions of Lieutenant F. G. Wintle, R.A., Station Staff Officer, Razmak.