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BY A. P. C.

K. H. SCHWIMMER ET AL  
CAMOUFLAGE  
Filed Feb. 10, 1941

Serial No.  
378,286  
4 Sheets-Sheet 1

Fig. 1

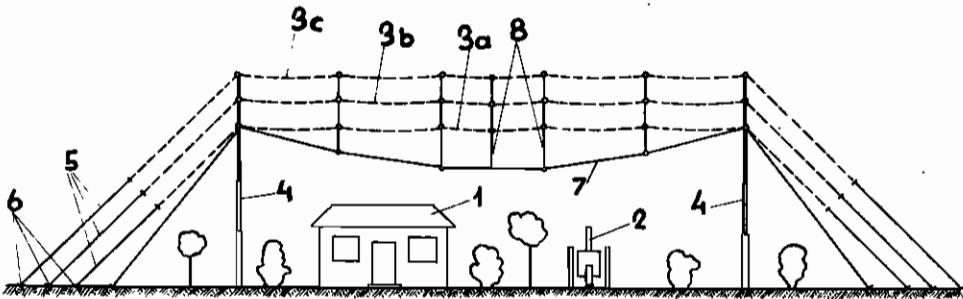
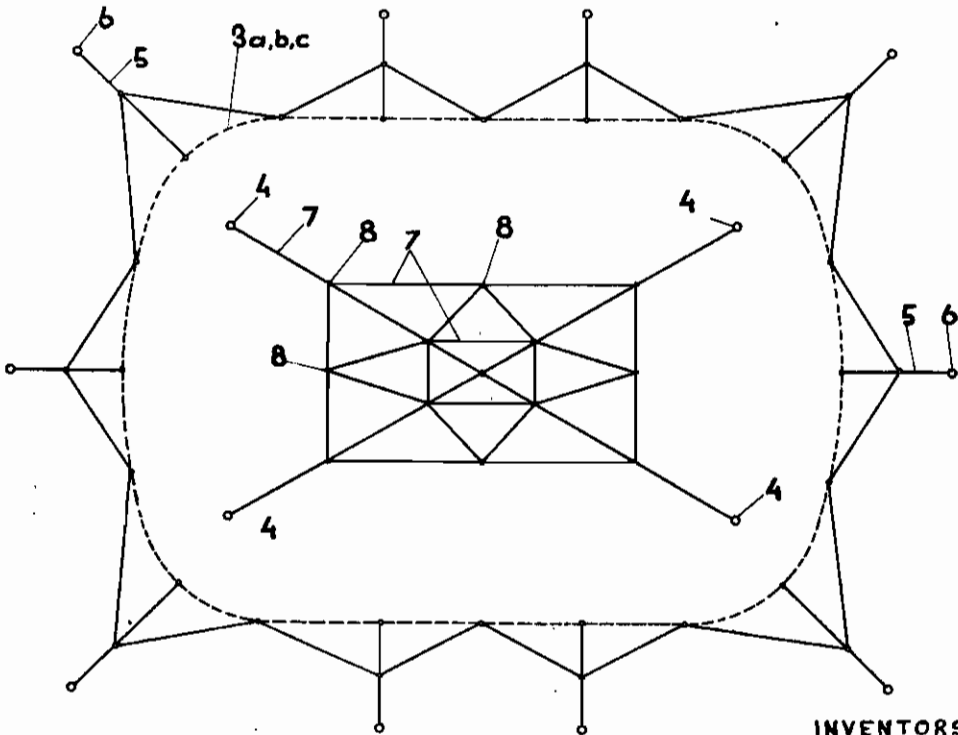


Fig. 2



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Fig. 3

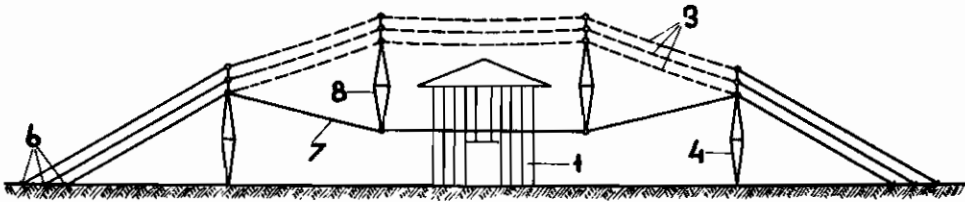
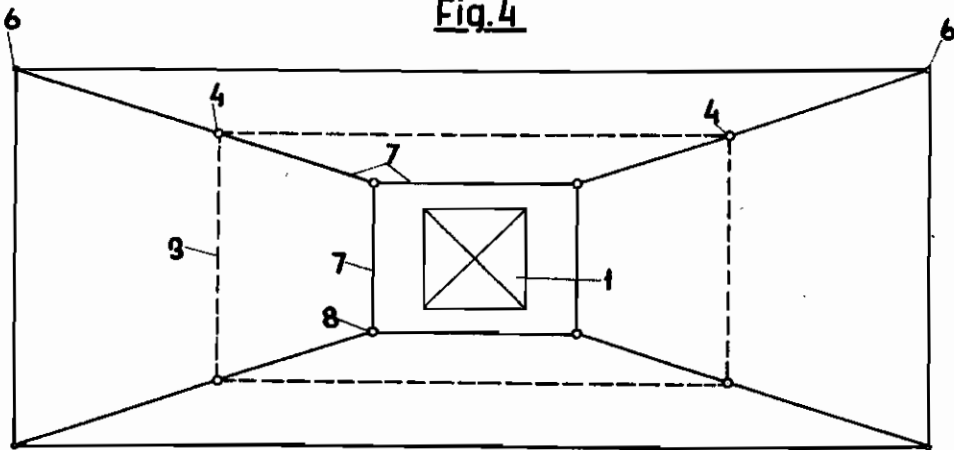


Fig. 4



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Fig. 5

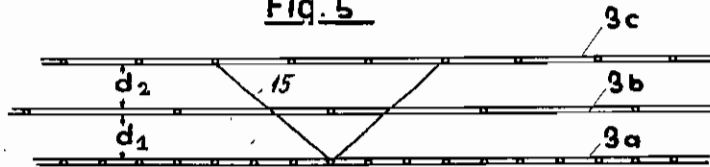


Fig. 7

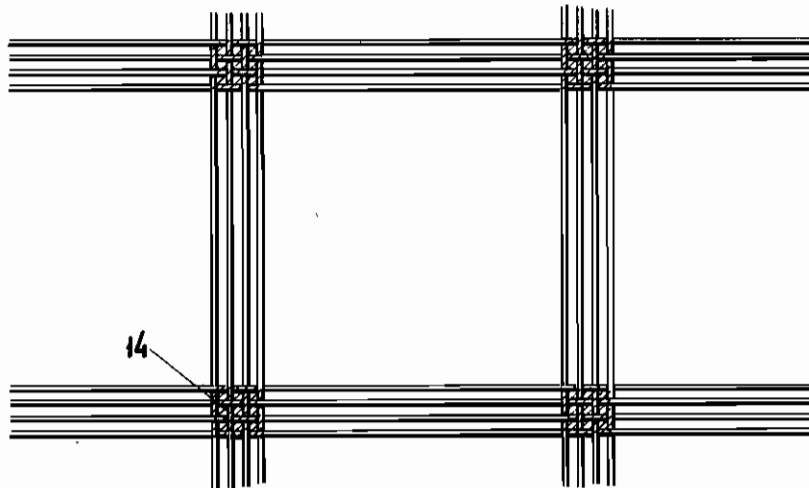
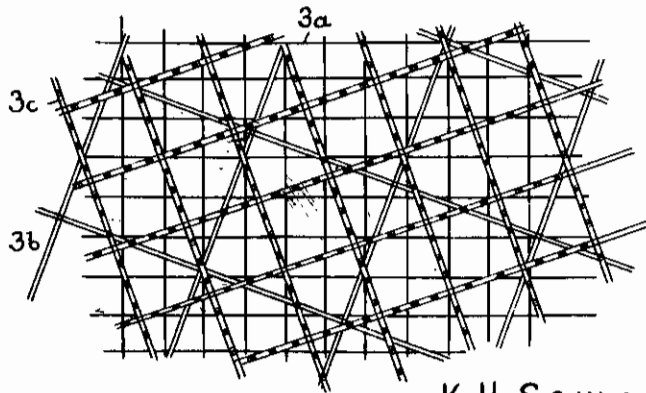


Fig. 6



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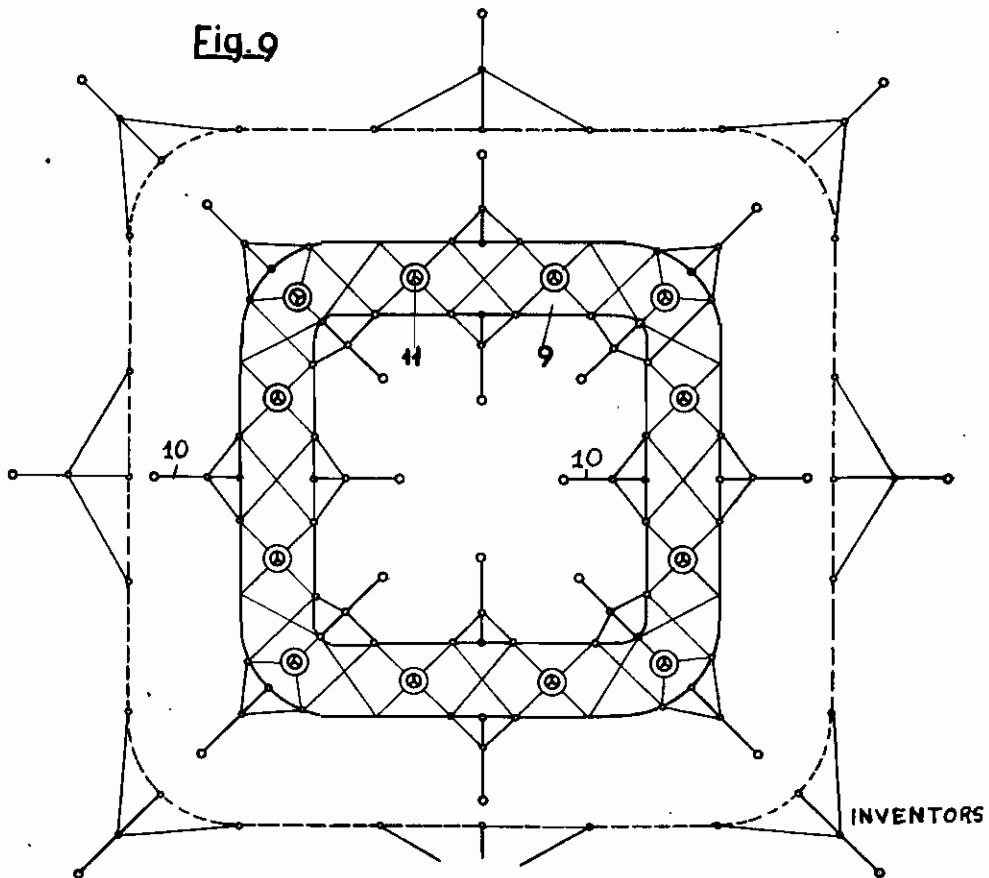
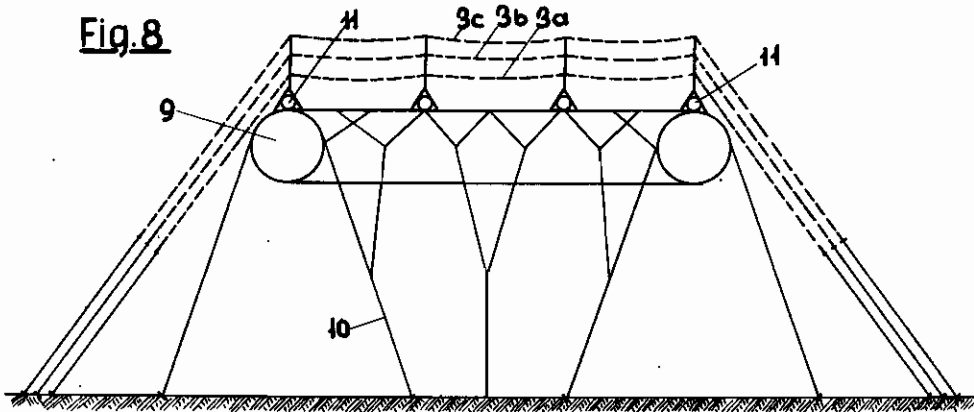
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# ALIEN PROPERTY CUSTODIAN

## CAMOUFLAGE

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erty Custodian

Application filed February 10, 1941

It has been proposed to use nettings as camou-  
flage material because of their portability and  
easy storage due to small weight and small bulk.  
The nettings must be, however, appropriately  
painted to harmonize with the surroundings.  
Hence, a plurality of nettings coloured to blend  
with different kinds of surroundings must be kept  
in stock. Standardisation requires, however, the  
reduction in the colourings to very few types, so  
that not one of these will be fully satisfactory if  
actually used in a special case. Besides, the  
changes of the illumination will influence differ-  
ently the colours of the surroundings and of the  
camouflage respectively especially if recorded by  
aerial photography. Hence, no perfect camou-  
flage can be obtained by means of screens painted  
in conformity to the locality.

The object of this invention is to provide a  
single standard camouflage structure which will  
blend with any kind of surrounding or locality  
independently of the illumination, whether ob-  
served directly or if photographed from the air.

Another object is to facilitate the erection of  
the camouflage over comparatively large areas.

According to this invention the camouflage  
comprises three superposed nets and supporting  
means to keep a distance between said nets and  
the object to be camouflaged, as well as between  
each net, the lowest net being green and having  
the smallest meshes, the middle one being red  
and having the largest meshes and the uppermost  
being blue and having meshes of intermediate  
size.

Referring to the accompanying drawings

Figs. 1 and 2 show diagrammatically a sectional  
elevation and a plan view respectively of an  
example of the general arrangement of the  
camouflage structure according to the invention.

Figs. 3 and 4 show a diagrammatical sectional  
elevation and a plan view respectively of another  
erecting structure.

Figs. 5 and 6 are a sectional elevation and a  
plan view respectively of the three superposed  
nets.

Fig. 7 shows a preferable type of net.

Figs. 8 and 9 show another example of the  
erected camouflage in sectional elevation and a  
plan view respectively.

With reference to Fig. 1, 1 and 2 are the objects  
to be camouflaged 3a, 3b and 3c are three super-  
posed nets shown with dotted lines and suspended  
on masts 4 which may be of a known telescoped  
type.

The nets are manufactured preferably from  
rough, piled or napped threads. The lowest net  
3a is of green colour and has the smallest meshes  
of about  $\frac{1}{2}$ -4 inches. The middle net 3b is red  
and the width of its meshes is between 2-6 inches,  
while the uppermost net 3c is blue and its meshes

are from 2-5 inches wide. The area of the  
meshes of the middle net should be preferably 16  
times and that of the uppermost net 12 times the  
area of the meshes of the lowest net.

5 The three nets should have preferably the same  
shape and size but the direction of the threads  
with respect to the outlines of the nets should be  
preferably different, so that if the nets are duly  
superposed the threads of the several nets appear  
10 in the plan view to intersect each other at acute  
angles, as will be seen in Fig. 6. The green net  
3a is shown with simple, the red net 3b with  
double and the blue net 3c with dotted double  
lines.

15 As will be seen from Figure 5, the several nets  
are kept apart from each other at distances  $d_1$   
and  $d_2$  which should be between  $\frac{1}{2}$ -8 inches. The  
three nets may be connected to each other by  
connecting links 15 shown in the drawings, of  
20 suitable length to secure the distances  $d_1$  and  $d_2$   
respectively.

The catenary suspension shown in Fig. 1 is  
preferably used in order to keep the nets approx-  
imately horizontal and secure the necessary inter-  
vals between the nets without increasing too far  
the tensional stress of the nets, especially if the  
span is comparatively large. The catenary sus-  
pension is formed by ropes 7 extending below the  
nets between the masts and props 8, which are  
30 fixed between the nets and the ropes 7, to support  
the several nets. By means of these props the  
nets can be even raised towards the centre of the  
net in the shape of a dome, as shown in Figs. 3  
and 4, so that the net can be raised over objects  
35 1 which are higher than the supporting masts 4.

It is desirable to expose to view a substantial  
surface of the threads and as large a napped  
surface as possible to cause a diffraction of light  
without increasing the weight of the net. For  
this purpose instead of knotting the net by single  
40 threads, according to Fig. 7, a plurality of com-  
paratively thin parallel threads leaving between  
them narrow gaps are interwoven at the cross-  
ings 14. At these crossings the position of the  
threads is preferably fixed by pasting by means  
45 of a watertight and non inflammable cement such  
as a phenol-formaldehyde polymerizate varnish  
or by means of auxiliary threads. Such nets can  
be woven on suitably combined weaving and bob-  
50 binet looms.

The supporting masts can be completely elim-  
inated, as shown in Figs. 6 and 9. According to  
these Figures the nets are supported preferably  
by a ring-shaped captive balloon 9 anchored to  
the ground by means of a plurality of ropes 10  
and crowned by propping structures 11 on which  
the nets are suspended.

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