

## UNITED STATES PATENT OFFICE

2,273,115

PROCESS OF PRODUCING FAST DYEINGS  
AND THE DYED FIBER OBTAINED THERE-  
BY

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The present invention relates to a process of  
producing fast dyeings and to the dyed fiber ob-  
tained thereby.

We have found that valuable dyeings of good  
properties of fastness are obtained on natural or  
artificial cellulose fibers and on animal fibers as  
well as on mixtures of animal fibers with cellu-  
lose fibers by applying to the material to be  
dyed a compound derived from 1,3,5-triazine and  
containing either at least one substituted or un-  
substituted radical which contains an amino-  
group capable of being diazotized and at least  
one radical capable of coupling with diazo-com-  
pounds, or a radical which contains simultane-  
ously the amino-group capable of being diazo-  
tized and the position capable of coupling with  
diazo-compounds, as well as at least one azo-  
group and a group lending solubility in water,  
then diazotizing the compound and causing it to  
combine with itself. The self-coupling may be  
performed or completed, for instance, by adding  
to the diazo-bath an agent neutralizing the acid  
or having an alkaline action, after the diazotiza-  
tion is finished, or by passing the goods through  
a bath having an alkaline action subsequently to  
the diazotization process.

The radical containing the amino-group capa-  
ble of being diazotized and the radical capable of  
coupling with diazo-compounds may be linked to  
the triazine radical by a carbon-, oxygen-, nitro-  
gen- or sulfur-bond.

As radicals capable of coupling with diazo-  
compounds there may, for instance, be used the  
radicals of naphthols, of ortho-hydroxycarboxylic  
acids, of beta-ketocarboxylic acids, of 2-amino-  
5-naphthol-7-sulfonic acid, of 2-amino-8-naph-  
thol-6-sulfonic acid, of 1-amino-8-naphthol-3,6-  
disulfonic acid, of 1-amino-3-dimethylamino-  
benzene or of pyrazolones. As further radicals  
the most various inorganic or organic radicals  
may be used.

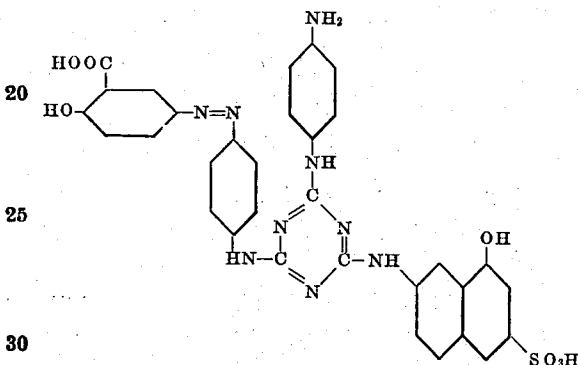
Most of the compounds used in the present  
process are substantive. Owing to the substan-  
tivity of these compounds for cellulose fibers it is  
possible to obtain on cellulose and regenerated  
cellulose as well as on mixtures of these fibers  
with animal fibers and, furthermore, on sheets  
from regenerated cellulose dyeings which are dis-  
tinguished by their good properties of fastness.  
As far as the condensation products do not con-  
tain a sulfonic acid group, they have an affinity  
for cellulose esters and ethers. By treating the  
dyeings on the fiber with agents yielding metal  
their properties of fastness may be improved.

The condensation products used as parent ma-

terials may, for instance, be prepared as described  
in German patent specification No. 634,213.

The following examples serve to illustrate the  
invention, but they are not intended to limit it  
thereto:

- (1) 1 kilo of mixed yarn consisting of 50 parts  
of wool and 50 parts of staple fiber from vis-  
cose is treated for 1 hour at 95° C. in a bath  
containing per 30 liters of water 50 grams of the  
tertiary condensation product from cyanuric  
chloride, 1 mol of 2-amino-8-hydroxynaphtha-  
lene-6-sulfonic acid, 1 mol of the reduced mono-  
azo-dyestuff from diazotized para-nitraniline and  
salicylic acid and 1 mol of para-phenylenedia-  
mine, of the following formula:

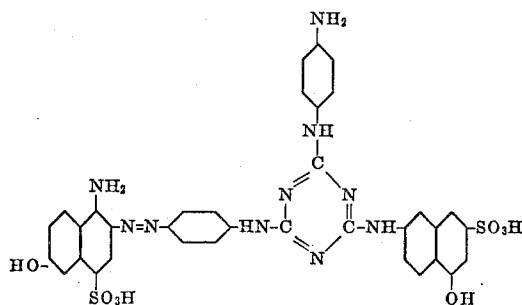


- and 80 grams of ammonium sulfate. 600 grams  
of sodium sulfate are then added and the ma-  
terial is further treated for half an hour at  
80° C. It is then rinsed, diazotized in the cold  
for half an hour in a solution containing per  
30 liters of water 25 grams of sodium nitrite, 25  
grams of sodium dibutyl-naphthalene sulfonate  
and 75 cc. of hydrochloric acid of 20° Bé. The  
material is then treated for half an hour in a  
fresh bath containing per 30 liters of cold water  
75 cc. of ammonia of 25 per cent strength  
and 5 grams of the condensation product from 1  
mol of octodecylalcohol and 20 mols of ethylene-  
oxide, rinsed and dried. A brown dyeing of good  
properties of fastness is obtained.

When this dyeing is after-treated in the heat  
in an acetic acid solution with potassium bi-  
chromate, chromium fluoride or copper sulfate,  
brown tints of an essentially improved fastness to  
water, to perspiration and to washing are ob-  
tained.

- (2) 1 kilo of a mixture consisting of 50 parts  
of wool and 50 parts of staple fiber from viscose  
is treated for 1 hour at 95° C. in a bath con-

taining per 30 liters of water 50 grams of a condensation product of the following formula:



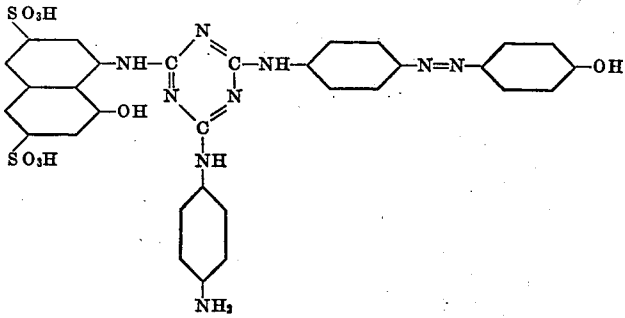
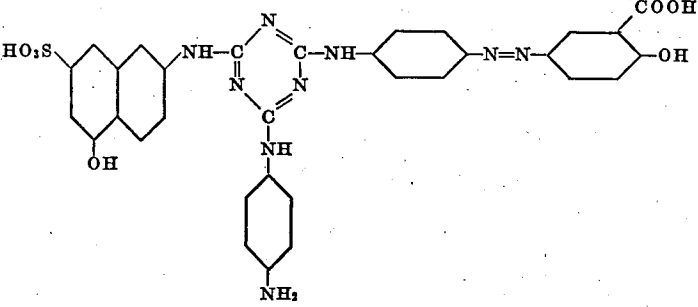
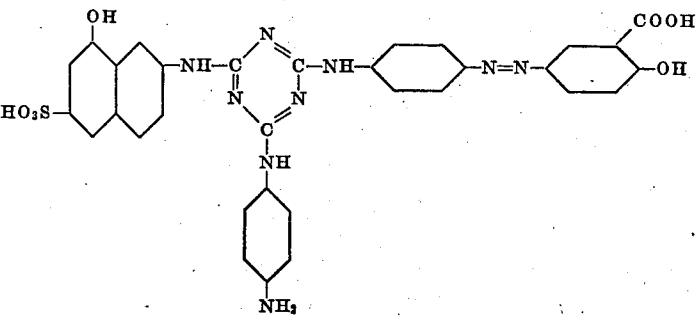
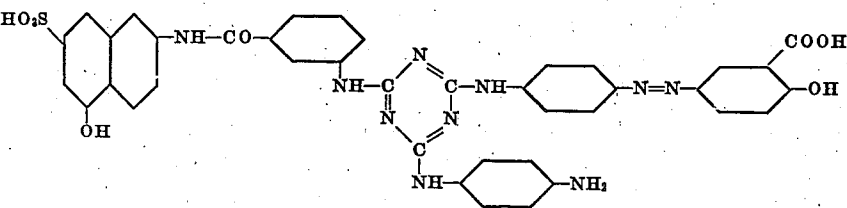
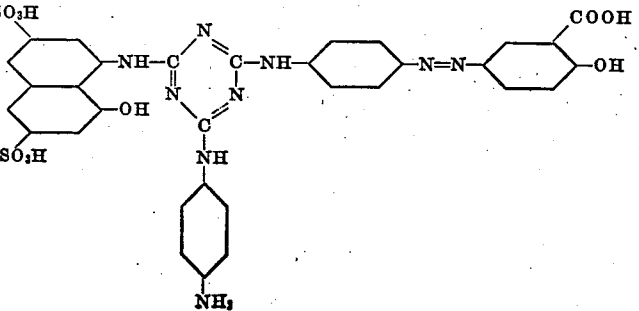
(obtainable by condensing cyanuric chloride with

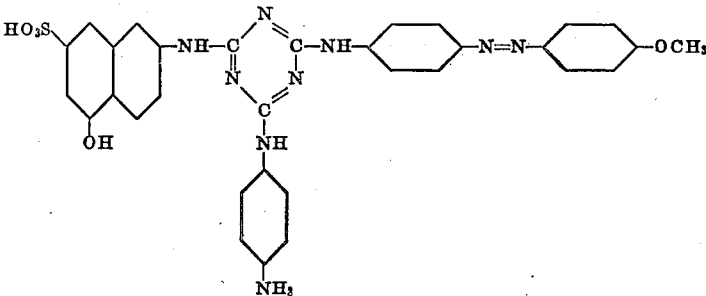
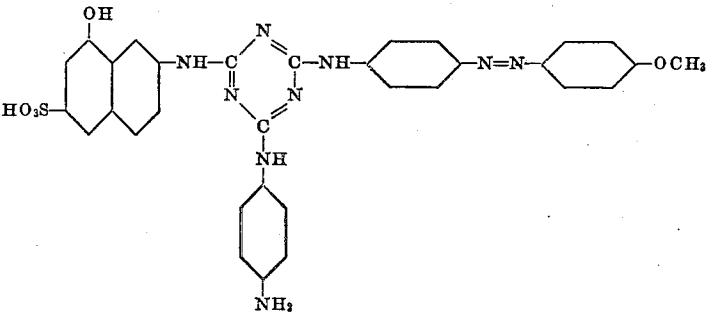
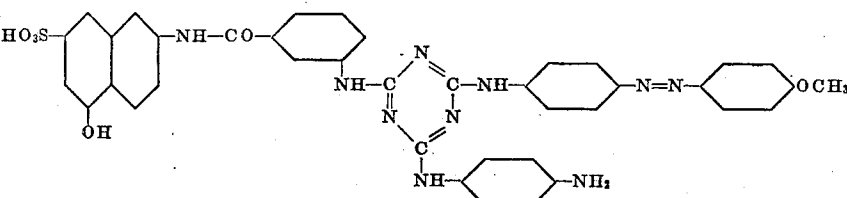
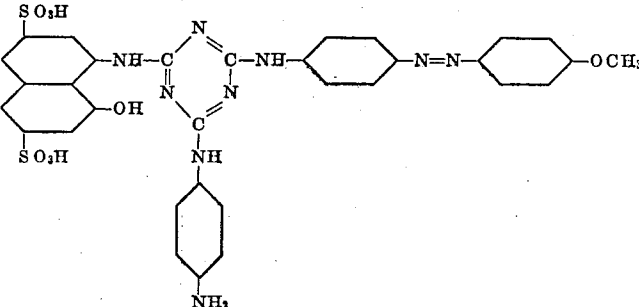
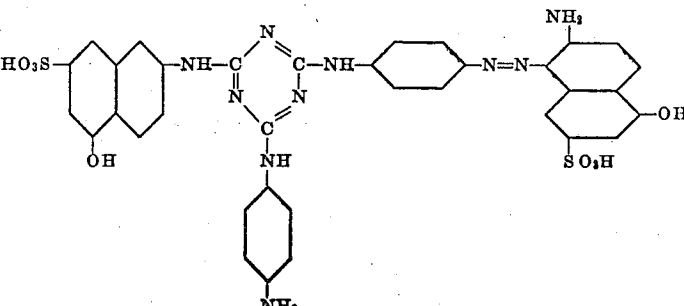
1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dye-stuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid, and 1 mol of para-phenylenediamine) and 80 grams of ammonium sulfate. 600 grams of sodium sulfate are then added and the material is further treated for half an hour at 80° C. It is then rinsed, diazotized and developed as described in Example 1.

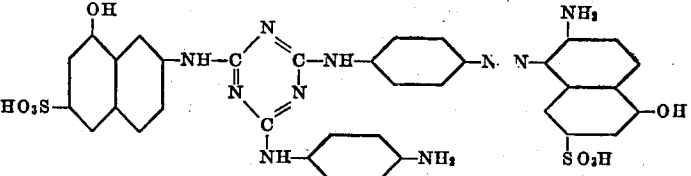
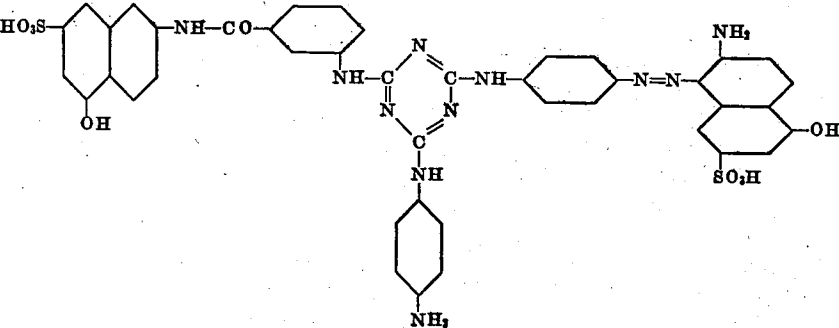
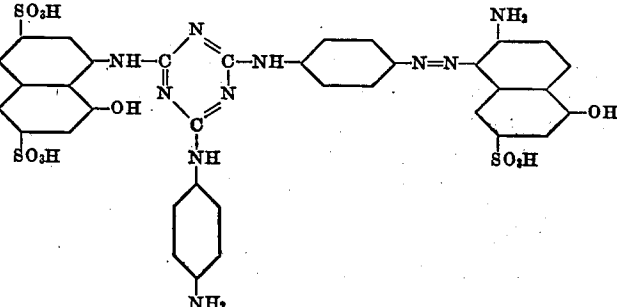
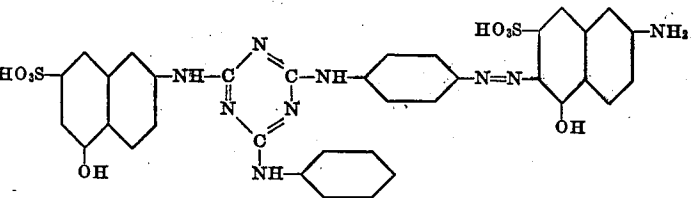
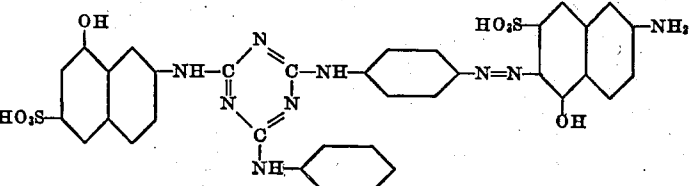
A red-brown dyeing of good properties of fastness is obtained. By treating the dyeing with metal salts in the heat its properties of fastness are essentially improved.

The following table illustrates the shades of a number of other dyeings obtainable by self-coupling according to the present invention:

|   | Parent component                                                                                                                                                                                                                                                                                                         | Shade                                                                |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol, and 1 mol of para-phenylenediamine or 1 mol of para-nitraniline with subsequent reduction, corresponding with the formula:</p> | Subdued golden-yellow, after-treated with metal salts, orange-brown. |
| 2 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxy-naphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>                                                       | Red-brown.                                                           |
| 3 | <p>Condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>                                        | Do.                                                                  |

|   | Parent component                                                                                                                                                                                                                                                                                                                                                               | Shade                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| 4 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>                         | Yellow-brown.                                                    |
| 5 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>                    | Yellow-brown, after-treated with metalsalts: more yellow shade.  |
| 6 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxy-naphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>                  | Leather-brown, after-treated with metalsalts: more yellow shade. |
| 7 | <p>Condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dye-stuff from diazotized para-nitraniline and salicylic acid, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>  | Do.                                                              |
| 8 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>               | Khaki-olive.                                                     |

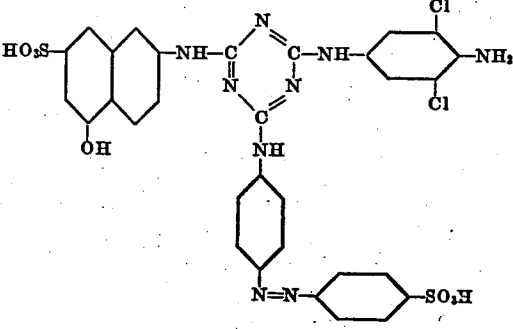
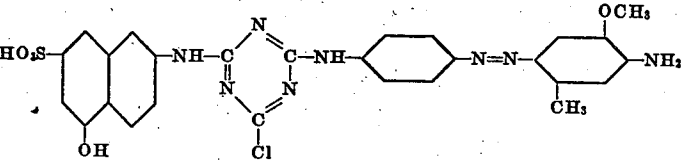
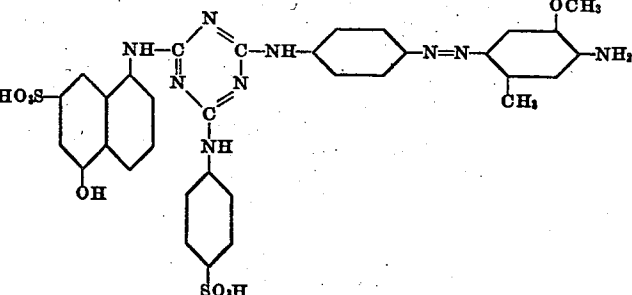
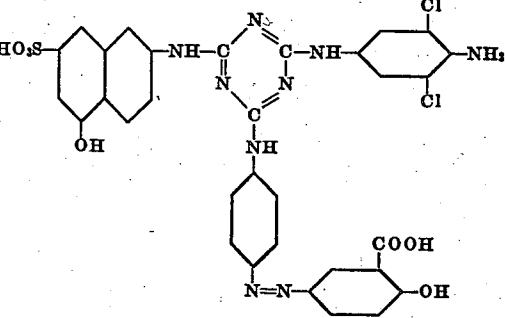
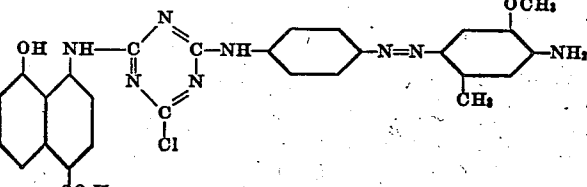
|    | Parent component                                                                                                                                                                                                                                                                                                                                                                                                | Shade         |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 9  | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol with subsequent methylation, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>                                 | Copper-brown. |
| 10 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol with subsequent methylation, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>                                | Red-brown.    |
| 11 | <p>Condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol with subsequent methylation, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>               | Do.           |
| 12 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol with subsequent methylation, and 1 mol of para-phenylene-diamine, corresponding with the formula:</p>                          | Do.           |
| 13 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an acid solution, and 1 mol of paraphenylenediamine, corresponding with the formula:</p>  | Do.           |

|    | Parent component                                                                                                                                                                                                                                                                                                                                                                                                               | Shade                                                                  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 14 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an acid solution, and 1 mol of paraphenylenediamine, corresponding with the formula:</p>                    | Bordeaux, after-treated with metal salts: more yellow shade.           |
| 15 | <p>Condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxy-naphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an acid solution, and 1 mol of para-phenylenediamine, corresponding with the formula:</p>  | Bordeaux, after-treated with metal salts: more yellow or bluer shades. |
| 16 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an acid solution, and 1 mol of paraphenylenediamine, corresponding with the formula:</p>              | Bordeaux, after-treated with metal salts: more yellow shades.          |
| 17 | <p>The saponified condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-acetyl-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline solution, and 1 mol of aniline, corresponding with the formula:</p>     | Garnet.                                                                |
| 18 | <p>The saponified condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-acetyl-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline solution, and 1 mol of aniline, corresponding with the formula:</p>     | Intense garnet.                                                        |

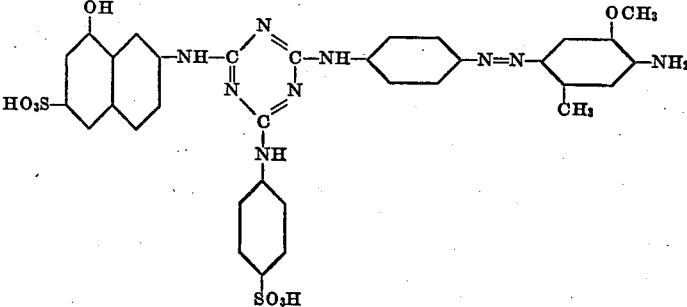
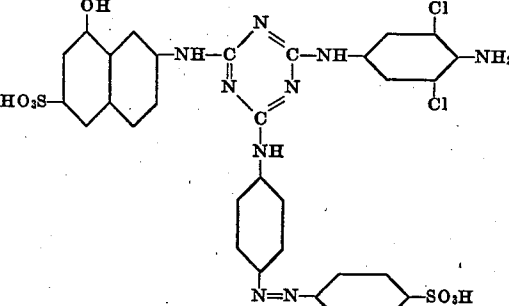
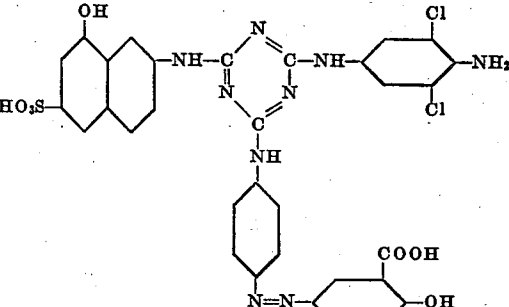
|    | Parent component                                                                                                                                                                                                                                                                                                                                          | Shade             |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 19 | <p>The saponified condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxy-naphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-acetylaminio-5-hydroxy-naphthalene-7-sulfonic acid in an alkaline solution, and 1 mol of aniline, corresponding with the formula:</p> | Violetish garnet. |
| 20 | <p>The saponified condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and 2-acetylaminio-5-hydroxynaphthalene-7-sulfonic acid in an alkaline solution, and 1 mol of aniline, corresponding with the formula:</p>               | Dark garnet.      |
| 21 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxy-naphthalene-7-sulfonic acid, 1 mol of the monoazo-dyestuff from diazotized para-nitraniline and aminohydroquinonedimethylether, and 1 mol of aniline, corresponding with the formula:</p>                                                                          | Currant.          |
| 22 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the monoazo-dyestuff from diazotized para-nitraniline and aminohydroquinonedimethylether, and 1 mol of aniline, corresponding with the formula:</p>                                                                           | Red-brown.        |
| 23 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxy-naphthalene-7-sulfonic acid, 1 mol of the monoazo-dyestuff from diazotized para-nitraniline and aminohydroquinonedimethylether, and 1 mol of aniline, corresponding with the formula:</p>                                                          | Do.               |
| 24 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the monoazodyestuff from diazotized para-nitraniline and aminohydroquinonedimethylether, and 1 mol of aniline, corresponding with the formula:</p>                                                                        | Brown.            |

|    | Parent component                                                                                                                                                                                                                                                                                                                   | Shade                |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 25 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the monoazo-dyestuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p>                | Brown.               |
| 26 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-4-sulfonic acid, 1 mol of the monoazo-dyestuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p>                | Dark garnet.         |
| 27 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the monoazo-dyestuff from diazotized paranitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p> | Violetish dark-blue. |
| 28 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the monoazo-dyestuff from diazotized para-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p>            | Bordeaux-garnet.     |
| 29 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the monoazo-dyestuff from diazotized 2-chloro-4-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p>          | Currant.             |
| 30 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the monoazo-dyestuff from diazotized 2-chloro-4-nitraniline and 2-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p>      | Garnet.              |

|    | Parent component                                                                                                                                                                                                                                                                                                                                                                                                     | Shade            |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 31 | <p>The reduced condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, and 1 mol of the monoazo-dyestuff from diazotized 2-methyl-5-methoxy-4-nitraniline and 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid in an alkaline medium, corresponding with the formula:</p> | Garnet.          |
| 32 | <p>The saponified condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized 2-chloro-4-nitraniline and 2-acetyl-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p>                                                                          | Dark garnet.     |
| 33 | <p>The saponified condensation product from cyanuric chloride, 1 mol of 3'-aminobenzoyl-2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized 2-chloro-4-nitraniline and 2-acetyl-amino-5-hydroxynaphthalene-7-sulfonic acid in an alkaline medium, and 1 mol of aniline, corresponding with the formula:</p>                                                          | Dark violet.     |
| 34 | <p>Condensation product from cyanuric chloride, 1 mol of 1-(4'-aminophenyl)-3-methyl-5-pyrazolone, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of 4-amino-1,1'-azobenzene-4'-sulfonic acid, corresponding with the formula:</p>                                                                                                                                                                               | Reddish yellow.  |
| 35 | <p>Condensation product from cyanuric chloride, 1 mol of 1-(3'-aminophenyl)-5-pyrazolone-3-carboxylic acid, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of 4-amino-1,1'-azobenzene-4'-sulfonic acid, corresponding with the formula:</p>                                                                                                                                                                      | Brownish yellow. |

|    | Parent component                                                                                                                                                                                                                                                                                                                                                       | Shade             |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 36 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of 4-amino-1,1'-azobenzene-4'-sulfonic acid, corresponding with the formula:</p>                                            | Yellowish red.    |
| 37 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid and 1 mol of 4,4'-diamino-2-methyl-5-methoxy-1,1'-azobenzene, corresponding with the probable formula:</p>                                                                      | Dark brown.       |
| 38 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of 4,4'-diamino-2-methyl-5-methoxy-1,1'-azobenzene and 1 mol of 1-aminobenzene-4-sulfonic acid, corresponding with the probable formula:</p>                           | Intense currant.  |
| 39 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, corresponding with the formula:</p>  | Middle red-brown. |
| 40 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-5-hydroxynaphthalene-4-sulfonic acid and 1 mol of 4,4'-diamino-2-methyl-5-methoxy-1,1'-azobenzene, corresponding with the probable formula:</p>                                                                    | Reddish brown.    |

|    | Parent component                                                                                                                                                                                                                                                                   | Shade                    |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 41 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-4-sulfonic acid, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, corresponding with the formula:</p> | Yellowish brown.         |
| 42 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-5-hydroxynaphthalene-7-sulfonic acid, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, corresponding with the formula:</p> | Intensely reddish brown. |
| 43 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-5-sulfonic acid and 1 mol of 4,4'-diamino-2-methyl-5-methoxy-1,1'-azobenzene, corresponding with the probable formula:</p>                                                                   | Reddish brown.           |
| 44 | <p>Condensation product from cyanuric chloride, 1 mol of 1-amino-8-hydroxynaphthalene-5-sulfonic acid, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicylic acid, corresponding with the formula:</p> | Brown.                   |

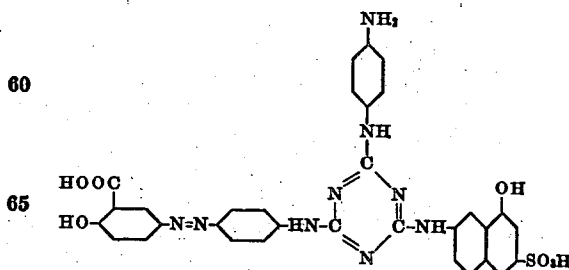
|    | Parent component                                                                                                                                                                                                                                                                                                                                                      | Shade            |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 45 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of 4,4'-diamino-2-methyl-5-methoxy-1,1'-azobenzene and 1 mol of 1-aminobenzene-4-sulfonic acid, corresponding with the probable formula:</p>                            | Intense currant. |
| 46 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of 4-amino-1,1'-azobenzene-4-sulfonic acid and 1 mol of 2,6-dichloro-1,4-diaminobenzene, corresponding with the formula:</p>                                           | Brownish red.    |
| 47 | <p>Condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of 2,6-dichloro-1,4-diaminobenzene and 1 mol of the reduced monoazo-dyestuff from diazotized paranitraniline and salicylic acid, corresponding with the formula:</p>  | Yellow-brown.    |

# We claim:

1. Process of producing fast dyeings on fibrous material of the group consisting of cellulose fibers, animal fibers and mixtures of animal fibers with cellulose fibers, which comprises applying to the fiber a compound derived from 1,3,5-triazine containing an azo group, a group conferring solubility in water, a diazotizable amino group and a grouping which is capable of coupling with a diazo compound, then diazotizing the compound on the fiber and causing self-coupling by an alkaline treatment.

2. Process of producing fast brown dyeings on fibrous material of the group consisting of cellulose fibers, animal fibers and mixtures of animal fibers with cellulose fibers, which comprises applying to the fiber the condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized paranitraniline and salicylic acid and 1 mol of para-

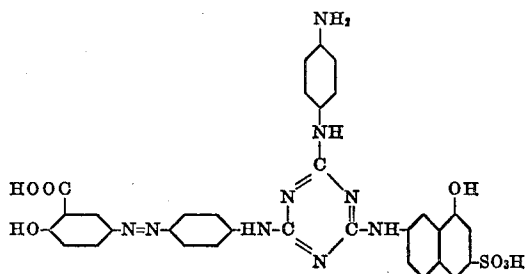
55 phenylenediamine, corresponding with the formula:



then diazotizing the compound on the fiber and causing self-coupling by an alkaline treatment.

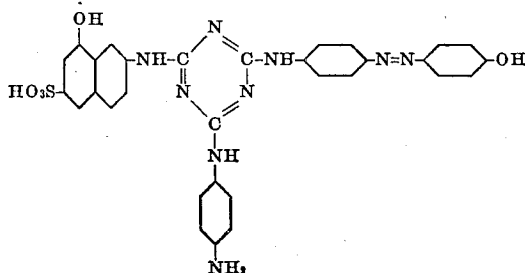
3. Process of producing fast brown dyeings on fibrous material of the group consisting of cellulose fibers, animal fibers and mixtures of animal fibers with cellulose fibers, which comprises applying to the fiber the condensation product from

cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicyclic acid and 1 mol of para-phenylenediamine, corresponding with the formula:



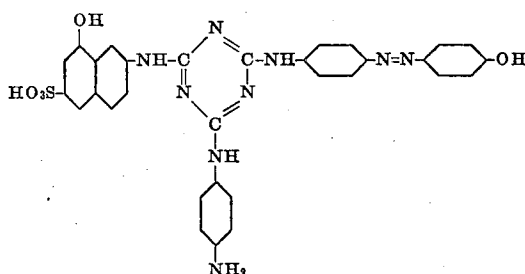
then diazotizing the compound on the fiber, causing self-coupling by an alkaline treatment and treating the dyeing with an agent yielding metal.

4. Process of producing fast red-brown dyeings on fibrous material of the group consisting of cellulose fibers, animal fibers and mixtures of animal fibers with cellulose fibers, which comprises applying to the fiber the condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol, and 1 mol of para-phenylenediamine, corresponding with the formula:



then diazotizing the compound on the fiber and causing self-coupling by an alkaline treatment.

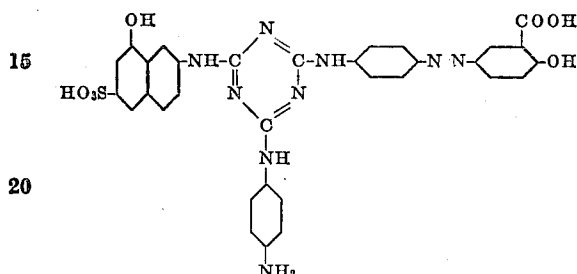
5. Process of producing fast red-brown dyeings on fibrous material of the group consisting of cellulose fibers, animal fibers and mixtures of animal fibers with cellulose fibers, which comprises applying to the fiber the condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and phenol, and 1 mol of para-phenylenediamine, corresponding with the formula:



then diazotizing the compound on the fiber, causing self-coupling by an alkaline treatment and

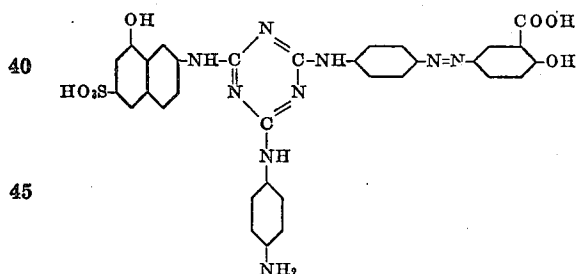
treating the dyeing with an agent yielding metal.

6. Process of producing fast leather-brown dyeings on fibrous material of the group consisting of cellulose fibers, animal fibers and mixtures of cellulose fibers, animal fibers and mixtures of animal fibers with cellulose fibers, which comprises applying to the fiber the condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicyclic acid, and 1 mol of para-phenylenediamine, corresponding with the formula:



then diazotizing the compound on the fiber and causing self-coupling by an alkaline treatment.

7. Process of producing fast leather-brown dyeings on fibrous material of the group consisting of cellulose fibers, animal fibers and mixtures of cellulose fibers, animal fibers and mixtures of animal fibers with cellulose fibers, which comprises applying to the fiber the condensation product from cyanuric chloride, 1 mol of 2-amino-8-hydroxynaphthalene-6-sulfonic acid, 1 mol of the reduced monoazo-dyestuff from diazotized para-nitraniline and salicyclic acid, and 1 mol of para-phenylenediamine, corresponding with the formula:



then diazotizing the compound on the fiber, causing self-coupling by an alkaline treatment and treating the dyeing with an agent yielding metal.

8. Fiber dyed with an azo-compound obtainable on the fiber by the process claimed in claim 1.

9. Fiber dyed with an azo-compound obtainable on the fiber by the process claimed in claim 2.

10. Fiber dyed with an azo-compound obtainable on the fiber by the process claimed in claim 3.

11. Fiber dyed with an azo-compound obtainable on the fiber by the process claimed in claim 4.

12. Fiber dyed with an azo-compound obtainable on the fiber by the process claimed in claim 5.

13. Fiber dyed with an azo-compound obtainable on the fiber by the process claimed in claim 6.

14. Fiber dyed with an azo-compound obtainable on the fiber by the process claimed in claim 7.

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