arran	REPUBLIC	REPUBLIEK	
वययव्यव्य	OF SOUTH AFRICA	VAN SUID-AFRIKA	
101	NORTH-W		
<b>Brezer</b>	NOORD W		
n an	PROVINCIAL G PROVINSIALEK		
	යන්තෙන්ත් සංකාශය කරන්න කරන කරන්න කරන කරන්න කරන කරන කරන කරන කරන කරන කරන කරන කරන කර		यसर
नन्तरा	Price R1,20	Prys R1,2	20
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Vol. 1 29/07/199	4 Nr. 15 No.	
2000 Contractor C			
राग्रह			
ererer		3	
asasa A	NAL NOTICE		
arererererererererererererererere	OFFICIAL POTICE OFFICIAL POTICE IN GAZENTE WAS INSUED ON 1994-09-10 1994-09-10		
222222			
वय्वयय			
22222			
	24		

30. K 8

s,\* × r .

## TLHATLHOBO YA DIKABLO

Sekaelo se se feleletseng se ka nna ya re morago ga kamogelo e phasaladiwa, sa tlhatlhojwa mo diureng tsa kantoro kwa kantorong ya Mokwadisi Kakaretso kwa Mmabatho ka tuelo ya 10c.

#### DIKHOPI TSA DIKWALO

Kantoro ya Mokwadisi Kakaretso, Kgetsanaposo x2094, Mmabatho, 8681, e tlhagisa dikhopi tsa dikwalo tsa dipatente le matshwaokgwebo otlhe ka kelotefo e e latelang; dikhopitshwantsho = 10c tsebe. (Tuelo e tshwanetse go diriwa ka ditempe tsa lotseno fela.

# DIKAELO TSE DI FELELETSENG TSE DI AMOGETSWENG LE DIKHUTSHWAFATSO TSA TSONA.

Dikaelo tse di felelatseng mubapi le dikopi tse di boletsweng fa tlase tsa Dikwalokano di amogatswe ke Mokwadisi Kakaretso. Motho mongwe le mongwe o ka nna ya re mo pakeng e e kaetsweng ya dikgwedi tse tharo, a maya kitsiso mo foromong e e kaetsweng (Foromo ya Dipatente ya 12) ya kganetso ya thebolelo ya Patente. Nako e e kuetsweng ya dikgwedi tse tharo morago ga go phasaladiwa ga kamogelo ya sekaelo se se feleletseng ka kopo e a patilweng ka mabaka a a popota, e ka mna ya atolosiwa ke Mokwadisi Kakaretso.

Ditlhaka tsa A go fitlha J di emetse tse di latelang: A. Nomore ya kopo. B Letlha a kopo. C. Letlha la kamogelo. D. Setlhopha. E. Leina la mokopi. F. Lefatshe le letlha la tumelano ya dikopo. G. Maina a batlhami botlhe. H. Setlhogo sa tlhamo. I. Palo ya ditopotuelo. J. Palo ya ditopotuelo. J. Palo ya ditsebe.

#### INSPECTION OF SPECIFICATIONS

A complete specification, may after acceptance is advertised, be inspected during hours at the office of the Registrar General, Mmabatho, at a charge of 10c.

## COPIES OF DOCUMENTS

The Office of the Registrar General, Private Bag X2094, Mmabatho, 8681, supplies copies of all patent and trade mark documents at the following rate Photocopies = 10c per page (Payment to be effected by means of revenue stamps only.)

#### COMPLETE SPECIFICATIONS ACCEPTED AND ABRIDGEMENTS THEREOF

Complete specifications in respect of the under-mentioned applications for Letters Patent have been accepted by the Registrar General. Any person may within the prescribed period of three months give notice on the prescribed form (Patent Form 12) of opposition to the grant of a Patent. The prescribed time of three months after advertisement of the acceptance of a complete specification may, on application accompanied by sound reasons, be extended by the Registrar General.

The letter A to J denot the following: A. Number of application. B. Date of application. C. Date of acceptance. D. Class. E. Name of applicant (s). F. Country and date of convention application. G. Name of all inventions. H. Title of invention. I. Number of claims. J. Number of sheets.

#### ONDERSOEK VAN SPESIFIKASIES

'n Volledige spesifikasie mag, na aanname daarvan gepubliseer is, gedurende kantoorure by die kantoor van die Registrateur Generaal, Maabatho teen 'n bedrag van 10c ondersoek word.

#### KOPIES VAN DOKUMENTE

Die kantoor van die Registrateur Generaal, Privaatsak X2094, Mmabatho, 8681, verskaf kopieê van alle patente en handelsmerkdokumente teen die volgende tarief. Fotokopieê = 10c per bladsy (Betaling moet alleenlik deur middel van inkomsteseels geskied.)

## VOLLEDIGE SPESIFIKASIES AANGEGAAN EN UITTREKSELS DAARVAN

Volledige spesifikasies opsigte van onderstaande aansoeke om Patentbriewe is deur die Registrateur Generaal aangeneem. Iedereen kan binne die voorgeskrewe tydperk van driemaande by die kantoor van die Registrateur Generaal op die voorgeskrewe vorm (Patent Vorm 12) kennis gee van beswaar teen die verlening van 'n patent. Die voorgeskrewe tydperk van driemaande na advertensie van die aanname van 'n volledige spesifikasie kan op aansoek, vergesel van volledige redes, deur die Registrateur Generaal verleng word.

Die letters A tot J in die keenisgewing dul die volgende aan: A. Nommer van aansoek. B. Datum van aansoek. C. Datum van aanname. D. Kles. E. Naam van applikant(e).

F. Land en datum van Konvensieaansoek. G. Name van alle uitvinders. H. Titel van uitvinding. I. Aantal aansprake. J. Aantal bladsye.

A : 93/0	071
----------	-----

B : 02.08.1993

C : 04.03.1994

D : B07, B65G

E : METAL BOX SOUTH AFRICA LIMITED

F : ZA 12/08/1992 92/6066

G : JAMES MICHAEL O'NEILL

H : A TRANSFER ARRANGEMENT FOR USE IN A CONTAINER PLANT

I : 22

J : 18

CLAIM

1. A blank half for use in manufacturing a carton, which includes

a generally rectangular side panel;

a generally rectangular end panel, an end of which is connected to an end of the side panel;

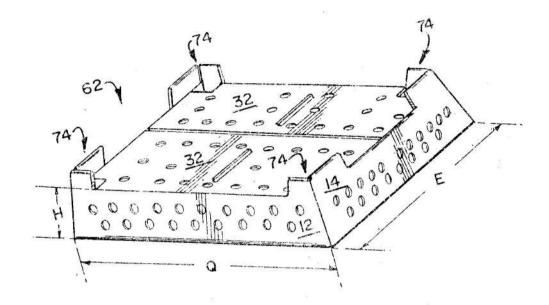
a rectangular outer base panel connected at a longitudinal edge thereof to an operatively lower edge of the side panel and having a width which is not greater than half of the length of an operatively lower edge of the end panel;

at least one rectangular inner base panel connected at its one end to the operatively lower edge of the end panel;

a side top panel connected to the side panel at or adjacent an operatively upper edge thereof; and

an end top panel which is connected to the end panel at or adjacent an operatively upper edge thereof.

- 2 - -



- A 93/0037
- B 03-05-1993
- C 06-05-1994
- D CO6B, F26B

E - Imperial Chemical Industries PLC

ICI Canada INC

F - GB 05-05-1992 9209620.5

H - Prill Drying

I - 7

J - 8

## CLAIM

1. A process for obtaining explosives grade animonium nitrate (EGAN) prill comprising the step of drying substantially mono-sized EGAN prill as is collected at the base of a prilling tower, the said prill containing from about 2 to about 5% residual water by weight, wherein said drying step is achieved by a process of solids plug flow fluidisation using a vertical transverse flow of drying gas to yield a product of bulk density around 0.6 to 0.7 gm/cc and a final water content in the range of from around 0.1 to 0.6% by weight water.

A	:	93/0087
B	:	14.09.1993
С	:	10.06.1994
D	:	E21D
E	:	M. PROPS (PROPRIETARY) LIMIT
F		S.A. 18.09.1992 92/7177
G	:	EDWARD GEORGE GROVES
H ;	:	"YIELDABLE PROP
Ι	:	22
J	:	28
CLAT	TM.	

CLAIM:

1.

A yieldable prop, which comprises

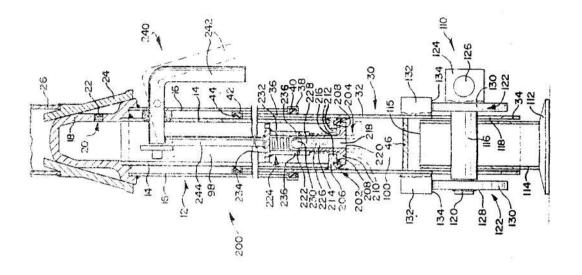
a primary elongate hollow prop component providing a primary hydraulic fluid chamber;

LIMITED

a secondary elongate hollow prop component providing a secondary hydraulic fluid chamber and movable telescopic fashion with respect to the primary prop component;

primary valve means separating the primary chamber from the secondary chamber, the primary valve means being actuable to have a first open configuration in which hydraulic fluid can pass from the one chamber to the other, or a second closed configuration in which the chambers are isolated from each other; and

secondary valve means adapted to permit passage of hydraulic fluid from the one chamber to the other when the primary valve means is in its closed position and on a force in excess of a predetermined force being exerted on the one prop component relative to the other, with the one prop component being slidable relative to the other as the fluid passes from said one chamber to the other, thereby to cause the prop to yield.



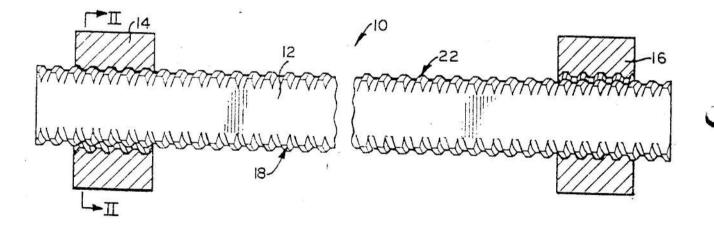
A	:	93/0077
B	:	04.03.1994
С	:	10.08.1993
D	:	C21B
E	:	MITEK
F	:	ZA 11.08.1992, 92/6006
G	•	MOHAMMAD JAVAD NIAYESH
H	:	THE PRODUCTION OF STAINLESS STEEL
Ι	:	15
J	:	31
CL	AIM	

A process for the production of steel in which 1. at least one of the alloy metals of the steel chosen from the group comprising the required chromium, manganese, vanadium, nickel, cobalt and molybdenum is provided in the form of a finely divided oxide of alloy metal the intimately mixed with a finely divided reductant with the mixture of oxide and reductant being in an agglomerated form.

A	:	93/0097
В	5	13.10.1993
С	:	10.06.1994
D	1	F16B, E21D
E	:	KITSANKER (PROPRIETARY) LIMITED
F	:	ZA (S.A) 16.11.1992 92/8829
G	:	DANIEL ANDRIES STEENKAMP
H	:	SCREW THREADED SHANK, FASTENER KIT,
I		9
J	•	10

CLAIM:

1. A shank having a composite screw thread along a predetermined portion of its length, the composite screw thread being adapted to engage either of a left handed and a right handed nut along said portion of its length.



ANCHOR BOLT ASSEMBLY

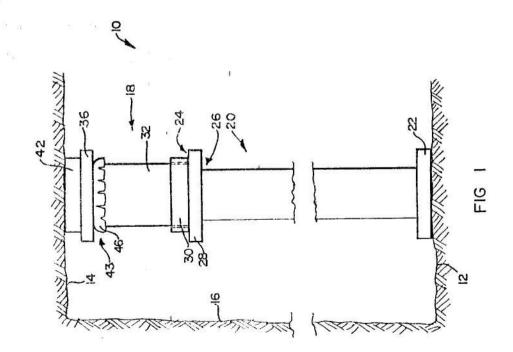
- A : 91/0121
- B : 24.10.1991
- C : 10.06.1994
- D : E21D
- E : CSIR
- F : NIL
- G : IAKOVOS SIGALAS, OLINTO GLUSEPPE DEL FABBRO
- H : A MINE SUPPORT PROP
- I : 37
- J : 29

10

CLAIM:

A support element which in use is axially aligned in series with a support member to form a mine support prop for supporting a hanging wall of a stope above a footwall of a stope, the support element comprising:

a body which is progressively crushable for accommodating downward displacement of a hanging wall, the body including crush initiating means for initiating crushing of part of the body when a downward force on the body exceeds a predetermined value while the remainder of the body substantially retains its original strength.



A	:	93/0094
В	:	29.09.1993
С	:	10.06.1994
D	:	B21D, B30B
E	:	ERNEST ROBERT BODNAR
F	:	CA 02.10.1992 2.079,721-5
G	;	ERNEST ROBERT BODNAR
H	:	ROTARY APPARATUS WITH MOVABLE DIE
I	:	23
J	:	34
	-	20

CLAIM:

1.

A rotary apparatus for rotary forming of a web workpiece characterized by:

a rotatable first roll unit and corresponding rotatable second roll unit;

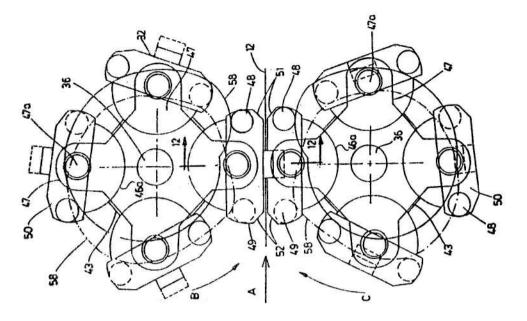
a first die support member carried by said first roll unit, said first die support member having a leading edge and a trailing edge respective to rotation of said first roll unit;

a second die support member carried by said second roll unit, said second die support member having a leading edge and a trailing edge respective to rotation of said second roll unit;

means for transporting a web workpiece in a forming plane between said first and second roll units;

and wherein each die support member includes a first part carried by the respective roll unit and a second part having a platen surface for mounting a die, the second part being mounted on the first part for reciprocal motion transverse to the leading and trailing edges.

- 8 -



- A 93/0074
- B 10-08-1993
- C 15-04-1994
- D EO2D, EO4B and EO4C

E - READY MIX MATERIALS (PTY) LTD

- F S.A. 13-08-1992 92/6083
- G JOHN MOLYNEAUX PHILLIP CLARK MARK ALLAN MITCHLEY

H - FOUNDATION/SLAB FOR BUILDINGS ON HEAVING CLAY AND OTHER UNSTABLE SOILS

1

I- 11

J - 13

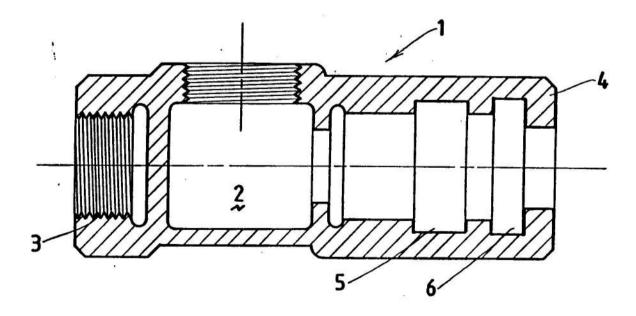
#### CLAIM

A foundation cum floor slab which comprises a concrete mass of inverted pyramidal form having a rectangular, square or other polygonal or round base.

e ny sere a salation a salation a

A	:	93/0100
В	:	21.10.1993
C	:	10.06.1994
D	:	F16K, F16L
Е	:	UNIHOLD ENGINEERING (PROPRIETARY) LIMITED
G	:	GIYNWR DAVID REES
H	:	VALVE CONNECTIONS
Ι	:	6
J	:	7
CL/	AIM	

A body for a value of the kind referred to in which at least one end of the body has a hose fitting integral therewith.



A : 93/0080

B : 17.08.93

C : 04.03.1994

D : E04C

E : ERNEST ROBERT ROONAR

F : CA 02.09.92 2.077.429-1

G : ERNEST ROBERT BOONAR

H : ROLL FORMED METAL MEMBER WITH REINFORCEMENT INDENTATIONTS I : 11

J : 23

CLAIM

1. A metal member having at least one edge formation, and web extending from said edge formation, and web extending from said edge formation, and comprising;

a plurality of generally triangular formations formed in said web at spaced intervals, said triangular formations being alternately reversed relative to one another and defining a base and three corners;

a plurality of generally diagonal struts extending across said web between adjacent said triangular formations;

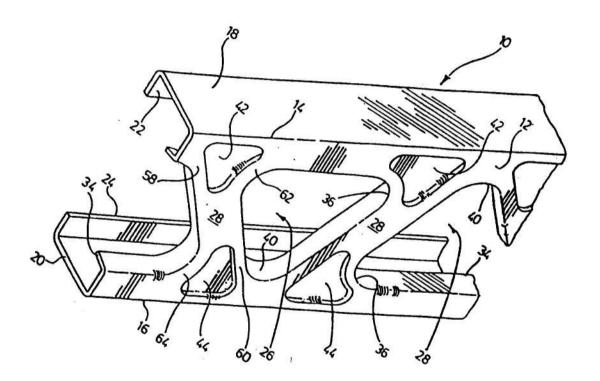
edge portions along either edge of said web, with said struts extending from one said edge portion to the other and merging integrally therewith;

first flange formations formed from said web around said generally triangular formations along each side of said struts, and lying at a predetermined angle to said web, whereby to give said diagonal struts a generally channel shaped cross section;

P. TO

second flange formations formed along a further side of said triangular formations and forming intermittent flanges along said web edges, at said base of each said triangular formations, and,

corner flange formations extending around said corners of said triangular formations, said corner flange formations lying at an angle to said web which is less than said predetermined angle of said first flange formations.



- A : 93/0079
- B : 04.03.1994
- C : 17.08.1993
- D : B21D, B30B
- E : ERNEST ROBERT BODNAR
- F : NIL
- G : ERNEST ROBERT BODNAR
- H : ROTARY FORMING APPARATUS AND METHOD
- I : 10
- J : 17

CLAIM

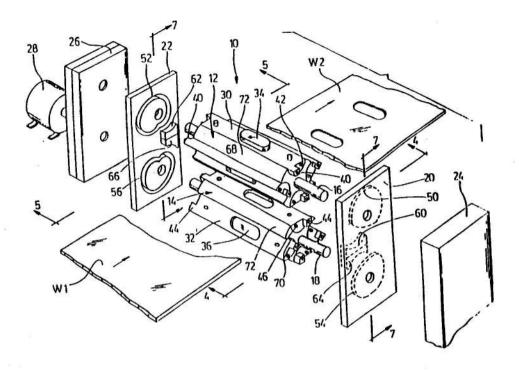
1. A rotary apparatus for forming a workpiece having upper and lower rotary members, adapted to rotate in unison on opposite sides of a workpiece at least one die support, movably supported on each said rotary member for carrying forming die means whereby the same may close and open relative to said workpiece, each said die support being movable in a semi-rotary manner relative to its rotary member and having leading and trailing edges and characterised by;

a first pair of guide pins, said first pair of pins being located at opposite ends of each said die support and offset from one another towards the leading and trailing edges of each said die support respectively;

first guide means for said first pair of guide pins located at respective ends of each said rotary member, for guiding said first pair of guide pins;

a second pair of guide pins on each said die support, located at opposite ends thereof, and offset from one another towards the trailing edge and leading edge respectively of each said die support, and,

second guide means located at each end of each said rotary member, said second guide means being adapted to engage said second pair of guide pins at a point just before said die supports close, and during closure of said die supports, and being disengaged from said second guide means just after opening of said die supports.





- A : 93/0066
- B : 22.07.1993
- C : 28.03.1994
- D : AO1K
- E : REPRODUCTIVE SCIENCES, INC.,
- F : U.S. 07/922,831 31.07.92
- G : DAVID CREWS, THANE WIBBELS
- H : METHOD FOR SEX DETERMINATION OF RATITE BIRDS
- I:6
- J : 10
- CLAIM

1. A method for preferential production of female ratites which have temperature dependent sex determination by treating developing embryos in ova, comprising the steps of:

(1) placing a tip of a needle through the surface of the ratite eggshell;

- A 93/0049
- B 08-06-1993
- C 15-04-1994
- D B29B, B29C and CO8J
- E RICHARD DAVID BAKER
- F US 09-06-1992 07/895.616
- G RICHARD DAVID BAKER
- H RECYCLED FIBRE REINFORCED RESIN CONTAINING PRODUCT AND METHOD AN APPARATUS THEREFOR
- I 23
- J 33

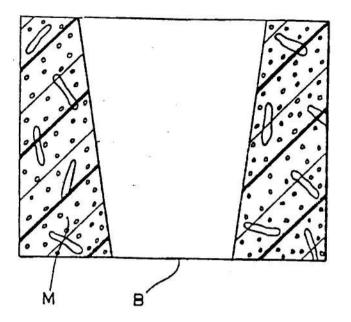
CLAIM

1. A recycled fibre reinforced resin containing product comprising:

a quantity of recycled fibre reinforced resin materials of random shape and dimensions;

a quantity of coarse aggregate material, said fibre reinforced resin materials and said aggregate material being dry-mixed together into an homogeneous combination, and

a binder, with which said dry mixture of fibre reinforced resin materials and said aggregate are intermixed with and embedded in, said binder being selected from materials having an initially plastic state, with which said dry mixture of fibre reinforced resin materials and said aggregate may be combined, and said binder and said fibre reinforced resin material and said aggregate materials being thereafter set into a hard mass.



- A : 93/0060
- B : 28.06.1993
- C : 24.06.1994
- D : CO2F
- E : THE BOC GROUP, INC.,
- F : US 14.07.1992, 913,257
- G : JOHN RAKSZAWSKI
- H : REMOVAL OF CYANIDE FROM AQUEOUS STREAMS
- I : 22
- J: 12
- CLAIM

1. A method of reducing the concentration of cyanide in a cyanide- containing aqueous stream comprising contacting the aqueous stream with an oxygen-containing gas and carbon dioxide in the presence of a water-soluble catalyst comprising ferrous ions, nickelous ions, cobaltous ions or mixtures of these.

A - 93/0082

B - 19-08-1993

- C 29-04-1994
- D E21D

E - HL & H Timber Products (Proprietary) Limited

- F NI1
- G Frans Roelof Petrus Pienaar Richard George King

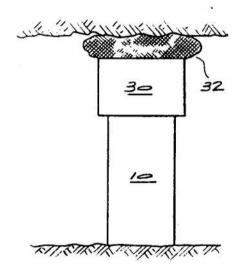
H - Spacer Assembly and method

- I 14
- J 16 A method of providing yielding support for a hanging wall above a footwall in a mine working, the method comprising the steps of installing, between the hanging and footwalls, a support assembly which includes:

CLAIM

a spacer comprising an assembly of timber members arranged in relation to one another to produce a structure with a relatively high level of stiffness in the vertical direction; and

a pack mounted upon or beneath the spacer, the pack comprising timber members arranged in relation to one another to produce a pack which has a relatively low level of stiffness in the vertical direction and which is vertically yieldable under compressive loading applied thereto when the hanging wall closes towards the footwall in the mine working. A method according to claim 1 wherein the method includes the further step of incorporating, within the height of the support assembly, a prestressing means capable of placing the assembly under a prestress force.



2.

- A 93/0075
- B 10-08-1993
- C 29-04-1994
- D B01F, C02F
- E The Boc Group PLC

F - GB 17-08-1992 9217480.4

G - Michael Enest Garrett

H - Treatment of Liquids

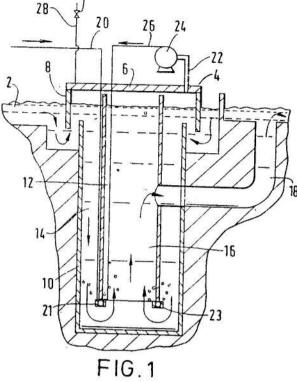
I - 14

J – 8

CLAIM

- 1. A method of dissolving a gas in a liquid comprising the steps of :
  - a) passing the liquid under a gas tight hood;
  - b) causing the liquid to fall as a stream from under the gas tight hood through a first passageway;
  - passing bubbles of the gas up through the descending liquid stream to dissolve in the liquid stream to form a gas-liquid stream;
  - causing the gas-liquid stream to ascend through a second passageway; and
  - e) passing further bubbles of gas up through the ascending gas-liquid stream to dissolve further gas in the gas-liquid stream and to balance the liquid density in the descending and ascending streams.

- 20 -



A : 90/0100

B : 06.05.1990

C : 20.10.1993

D : B65D

E : NATIONAL SORGHUM BEER BREWERIES (PROPRIETARY) LIMITED

F : ZA 06.05.1989 89/4002

G : (1) WILLEM JOHANNES JACOBUS PETRUS STEYN

(2) GAVIN ROY LARKIN

(3) PHILLIP WILHEM KOTZENBERG

H : LIQUID CONTAINERS

I : 18

J:11

CLAIM

1. A beer sachet having a relief valve through which gasses can escape, thereby preventing an unacceptable build up of such gasses in the sachet. A - 93/0058

- B 24-06-1993
- C 10-01-1994
- D HO1Q

E - Grinaker Electronics Limited

F - S.A. 26-06-1992 92/4764

G - Dirk Jacobus Coetzee

H - Active Patch Antenna

1 - 11

J - 10

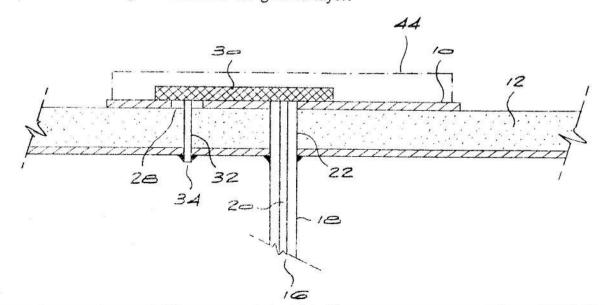
CLAIM 1. A patch antenna comprising:

a substrate comprising a sheet of dielectric material;

a conductive ground layer on one side of the substrate;

a conductive antenna element on the other side of the substrate; and

a coaxial cable having a screen conductor and a core conductor, the screen conductor being connected to the ground layer and to the antenna element in a non-active area of the antenna element, and also to an active area of the antenna element, and the core conductor being connected to the ground layer.



A - 93/0057

B - 24-06-1993

C - 10-01-1994

D - H01Q

E - Grinaker Electronics Limited

F - Nil

G - Nicol Pieter Spies

Dirk Jacobus Coetzee

Frank Strachan

H - Antenna Assembly

I – 15

J – 8

An antenna comprising:

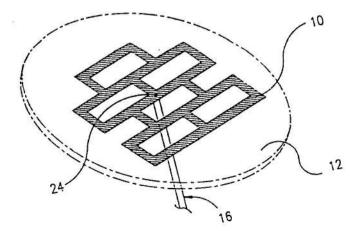
CLAIM

a substrate comprising a sheet of dielectric material;

a conductive ground layer on one side of the substrate;

a conductive antenna element on the other side of the substrate having a grid configuration; and

conductor means having a first conductor element connected to the ground layer and a second conductor element connected to the antenna element.



- 22 -

A 93/0063 :

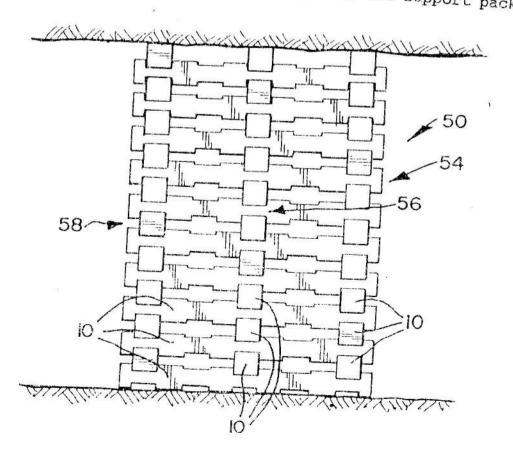
B 07.07.1993 di.

- С . 01.07.1994
- D E21D :
- REINFORCED EARTH MINING SERVICES (PROPRIETARY) LIMITED E :
- ZA (SA) 09.07.1992 F . 92/5138
- : (i) LEON DISON G
  - ANDREW CAMPBELL STEWART SMITH (ii)
  - (iii) NICHOLAS JACQUES PAPENFUS
- H : SUPPORT PACKS
- Ι : 19
- J : 23

CLAIM

1.

A support pack comprising a plurality of elongate support pack building blocks which are formed of a set material, which are reinforced, and which are recumbently arranged to form a plurality of upright, spaced apart, linked columns, each column having a height corresponding to the height of the support pack.



- A 93/0081
- B 19-08-1993

C = 06 - 06 - 1994

D - A61K Cotc and CO7D

E - F. Hoffmann-La Roche Ag

- F. USA 26-08-1992 935.770
- G Robert Karasiewicz

Carlo Nalin

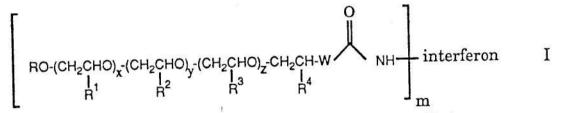
Perry Rosen

- H Peg-Interf ren Conjugates
- I 32

J – 29

### CLAIM

1. An interferon conjugate of the formula:



wherein R is lower alkyl; R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are H or lower alkyl;

m is selected from integers  $\geq 1$  up to the number of accessible amino groups in the interferon;

W is O or NH;

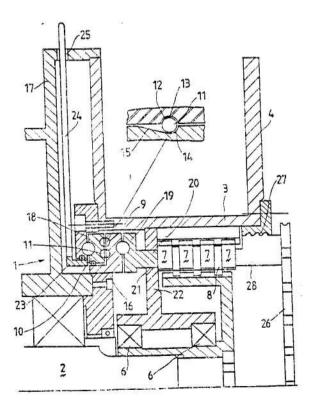
x is an integer between 1 and 1000 and each of y and z is an integer from 0 to 1000, and the sum of x, y and z is 3 to 1000;

with the proviso that at least one of  $\mathbb{R}^1$ ,  $\mathbb{R}^2$ ,  $\mathbb{R}^3$  and  $\mathbb{R}^4$  is lower alkyl.

- A : 93/0076
- B : 10.08.1993
- C : 04.03.1994
- D : B66D
- E : AMIFRANCOLS PILLMAN
- F : ZA 18.08.92 92/6207
- G : AMI FRANCOLS PILLMAN
- H : WINCH CLUTCH MECHANISM
- I : 11
- J : 12

CLAIM

1. A winch cable drum clutch assembly comprising an annular cam held between thrust bearings and operable by a radially extending lever to apply an axial thrust to the clutch plate assembly.



A - 93/0089

B - 16-09-1993

C - 06-06-1994

D - F24D

E - AECI Limited

F - ZA - 21-09-1992 92/7206

G -ALLISTER STRATFORD POHI,

Keith Anthony Jordan

Colin Douglas Wilson

H - Emulsion Explosive

I - 12

J - 9

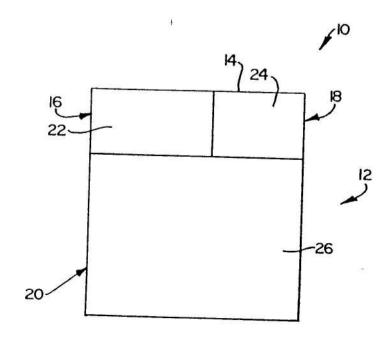
1. A method of blasting using an emulsion explosive, the method comprising the steps of:

- 26 -

causing separate constituents of an emulsion explosive to be conveyed to a blasting site in a non-detonatable form, contained in separate compartments in the same portable container;

mixing said constituents together in the container at the site to form a sensitized emulsion explosive;

loading the explosive into at least one borehole at the site; and detonating the explosive in the borehole.



A - 93/0030

- B 06 04 1993
- C 06-05-1994
- D BO1D
- E African Gzygen Limited
- F GB 06-04-1992 9207496.2
- G Richard William Watson
- H Treatment of gas streams
- 1 38

J - 31

#### CLAIM

- A method of treating a feed gas stream comprising hydrogen sulphide, comprising the steps of:
  - a) in a first reactor converting to sulphur dioxide a part of the hydrogen sulphide content of the feed gas stream and reacting thus formed sulphur dioxide with residual hydrogen sulphide to form sulphur vapour and water vapour, so as to produce a sulphur-containing gas stream comprising hydrogen sulphide, sulphur dioxide, water vapour and sulphur vapour;

. 17

- b) extracting sulphur vapour from the sulphur-containing gas stream;
- c) in a second reactor reducing to hydrogen sulphide at least part of the sulphur content of the gas stream from which sulphur vapour has been extracted;

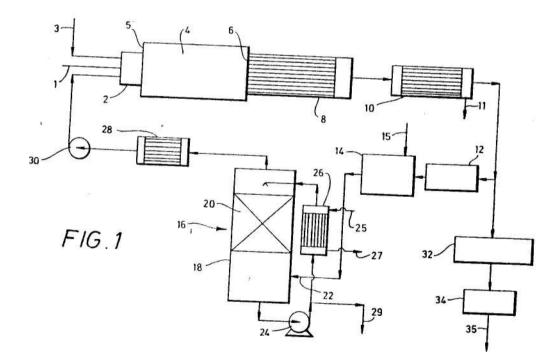
950

 extracting water vapour from the reduced gas stream so as to form a secondary gas stream comprising hydrogen sulphide;

 either (i) returning at least part of the secondary gas stream to the first reactor and taking as a purge stream either a part of the gas stream intermediate steps (b) and (c) or another part of the secondary gas stream, or both;

or (ii) taking at least part of the secondary gas stream as a purge stream without returning any of it to the first reactor; and in either case:

f) discharging the purge stream.



A -93/0053

B - 14-06-1993

C - 29-04-1994

D - F42D, E21B

E - ICI Australia Operations Proprietary Limited

F - Australia 15-06-1992 PL 2963

G - Donald George Briggs

Anthony Martin Palmer

Stephen Thomson

H - Method of Borehole Loading

I – 21

J - 17

## CLAIM

1. A method of loading a borehole with explosive composition comprising locating within said borehole at least one plugging device comprising a hollow elongate member which plugging device is adapted to retain the explosive composition within the borehole, feeding an explosive loading hose through the plugging device and filling the borehole with explosive composition. B - 03-05-1993

C - 06-05-1994

- D CO1C, CO6B
- E Imperial Chemical Industries PLC

ICI Canada Inc

F - GB05-05-1992 9209619.7

G - Raymond Oliver

AIDA Kaldas

H - Granulated Ammonium Nitrate Products

I - 9

J - 11

## CLAIM

١

A process for the production of explosives grade 1. ammonium nitrate prill (EGAN), which process comprises

- (A). producing seed ammonium nitrate prill, (i.e. porous, oil-absorbent less dense explosive grade prill or dense, low absorbency fertilizer grade prill), as substantially monosized prills; and then
- (B). fattening, with drying and thermal treatment, the seed prill in an inclined rotating jacketed pan granulator or a cascade of such pans to produce a final fattened EGAN prill product preferably having at most about 4 mm diameter.

A - 93/0038

B - 03-05-1993

C = 06 - 05 - 1994

D - BO1J, B29B, CO68

E - Imperial Chemical Industries PLC

ICI Canada INC

05-05-1992 9209621.3 F - GB

G - Raymond Oliver

Rononald Otto Peddie

- H Prilling Process
- T 6
- J 9

1. A process for producing explosive grade ammonium nitrate (EGAN) prills which process comprises the steps of:

- continuously spraying a 95 to 98% by weight a.
- 5

10

solution/melt of ammonium nitrate (or a mixture of ammonium nitrate and minor proportions of one or more other EGAN - acceptable nitrates) in/with water under spray-head conditions causing the emergent jets to break into cascades of substantially mono-sized droplets;

allowing the formed droplets to fall within a vertical b. duct:

- continuously feeding a stream of cooling gas (e.g. c. ambient air) upwards through the duct to effect cooling and solidification of the falling droplets and some removal of moisture so as to form substantially monosized EGAN prills of up to about 4 mm diameter, and
- continuously withdrawing the EGAN prills collecting at d. the base of the duct (such EGAN prills then optionally being further cooled and/or dried in a forced draught regime),

the process being further characterised by intensification of the upward gas flow regime in the duct such that:

20

15

25

30

35

 (i) the temperature difference of the gas flow between its inlet to the duct and its outlet from the duct is at least about 60°C; and

(ii) the falling velocity of the prills in the duct is at most about 3 metres/second relative to ground (i.e. a stationary observer external to the duct) the upward gas flow velocity being e.g. 6 m/s relative to ground for 2 mm prill and 9 m/s for 3 mm prill and, optionally,

(iii) recycling the gas stream after washing and cooling and addition of any required make-up gas.

- A : 93/0088
- B : 16.09.1993
- C : 24.06.1994
- D : CO6B
- E : 1. IMPERIAL CHEMICAL INDUSTRIES PLC
  - 2. Ie I CANADA INC.
- F : GB. 22.09.1992 9220052.6
- G : SEK KWAN CHAN
  - IAN JOHN KIRBY

RAYMOND OLIVER

- H : METHOD OF PRODUCING PYRO TECHNIC MASSES
- I : 11
- J: 12
- CLAIM

1. A process of forming a pyrotechnic aggregate composed of elemental pyrotechnic bodies adhered together by solid azide released from a slurry of such bodies by evaporation, said elemented pyrotechnic bodies being composed of core particles of an azide coated with particles of a metal oxide (or mixture of oxides). A : 93/0086

B : 04.03.1994

C : 31.08.1993

D : F42B, F42D

E : AECI LIMITED

F : ZA, 24.09.1992, 92/7324

G : BRIAN BRIND CRETCHLEY

H : A METHOD OF BLASTING

I : 27

J : 21

CLAIM

1.

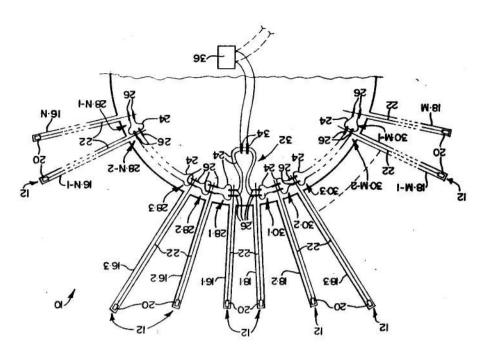
A method of blasting which includes

providing a number of detonating units, each comprising a delay detonator having a length of detonating fuse extending therefrom;

inserting at least one detonator into each of a number of blastholes;

providing a number of propagating units, each propagating unit having a length of propagating fuse with a propagating connector at each end; and

connecting the detonating units and the propagating units together in a series, by connecting both propagating connectors of each propagating unit in the series to the same length of detonating fuse of an associated detonating unit in the series and also to the propagating fuse of the next propagating unit in the series.



A 92/0123 в : 29.10.1992 C . 29.09.1993 D E21D AND F42D : CASPER JAN HENDRIK DU PLESSIS Е : F NIL : G : CASPER JAN HENDRIK DU PLESSIS A METHOD AND AN ELEMENT FOR FORMING A BLAST BARRICADE H : J 20 : I 12 :

CLAIM:

# ABSTRACT

This invention provides an element 10 for forming a blast barricade which includes an elongate, tubular body, preferably of plastics material, having a first coupling 14 towards one end. The coupling formation 14 includes a pair of interconnected, diametrically opposed tongue formations 20 axially spaced from an abutment face 16 towards the end of the pipe 12. In use a further similar element 110 having a second coupling 114 complimentary to the coupling 14 is interlocked with the element 10 by laterally displacing the elements towards each other. The interlocked couplings are conveniently secured to each other for the duration of a blast operation by positioning a displaceable sleeve 34 in overlapping relationship with the interlocked elements.

A	:	93/0090
B	:	20.09.1993
С	:	10.06.1994
D	:	F16H AND F23K
Е	:	HENNING MORGAN HENDERSON

ZA 22.09.1992 92/3451 F

G HENNING MORGAN HENDERSON-

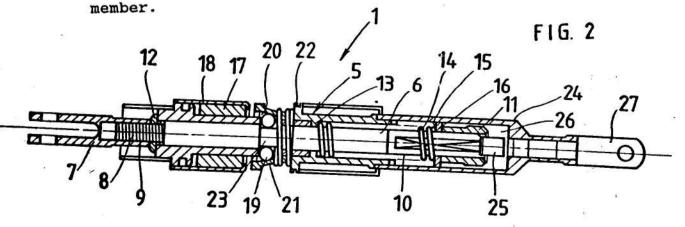
A LINEAR LINK SELECTIVELY PROVIDING FOR LOST MOTION

17 I

H

28

A linear link assembly comprising a linear CLAIM: member collinear inner outer member and relative thereto movable telescopically between terminal positions which define a degree of lost motion; formations in adjacent zones of the inner and outer members and located to correspond in linear position at one terminal position of said degree of lost more catch elements for or one motion; releasably co-operating with said formations when in alignment to selectively permit or prevent said lost motion; a retainer member movable axially relative to the link for selectively urging the catch elements into engagement with the formations in at least one of the members; and a co-axial solenoid coil for controlling the operation of the retainer



-35-

сь о О О О О