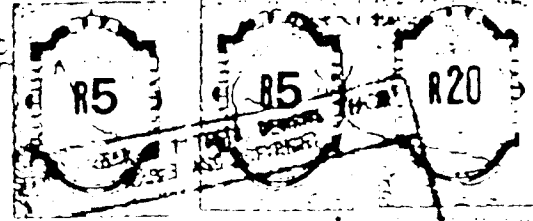


John & Kernick

REPUBLIC OF SOUTH AFRICA  
PATENTS ACT, 1978  
APPLICATION FOR A PATENT AND  
ACKNOWLEDGEMENT OF RECEIPT  
(Section 30(1) - Regulation 22)

FORM P 1

The grant of a patent is hereby requested by the undermentioned applicant on the present application filed in duplicate



Official application No.

21 01 840991

J & K Ref: P. 903210 - 2 - 1984  
MVS/CP  
MODEL  
OFFICE

71 Full name(s) of applicant(s)

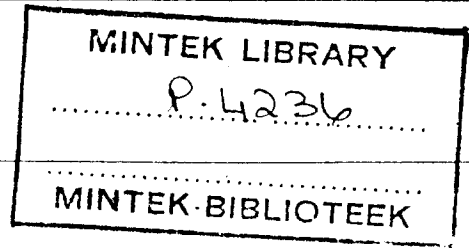
COUNCIL FOR MINERAL TECHNOLOGY

Address(es) of applicant(s)

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Republic of South Africa

54 Title of invention

"MATERIALS FEEDER ASSEMBLY"



- The applicant claims priority as set out on the accompanying form P2
- This application is for a patent of addition to Patent/ Application No. 

24	01	
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- This application is a fresh application in terms of section 37 and based on Application No. 

21	01	
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- This application is accompanied by:
  - 1a A single copy of a provisional specification of ..... pages
  - 1b Two copies of a complete specification of .18. pages
  - 2a Informal drawings of ...3... sheets
  - 2b Formal drawings of ..... sheets
  - 3 Publication particulars and abstract (form P8 in duplicate)
  - 4 A copy of Figure ..... of the drawings for the abstract
  - 5 Assignment of invention (from the inventors) or other evidence of title
  - 6 Certified priority documents ( documents)
  - 7 Translation of priority documents ( documents)
  - 8 Assignment of priority rights
  - 9 A copy of the form P2 and the specification of S. A. Patent Application 21 01 

21	01	83/1541
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  - 10 A declaration and power of attorney on form P3
  - 11 Request for ante-dating on form P4
  - 12 Request for classification on form P9
  - 13a Request for delay of acceptance on form P4
  - 13b

74 Address for service JOHN & KERNICK, JOHANNESBURG / KERNICK

Date 10/02/1984

For the Applicant

The duplicate will be returned to the applicant's address for service as proof of lodging but is not valid unless endorsed with official stamp

Received	
Official date stamp	
Registrar of Patents	

WHAT WE CLAIM IS:

1. A materials feeder assembly comprising a rotatable drum having a closed lower end and having its axis at an incline to the horizontal and an open upper end, a single or multiple helical flight formation rotatable in unison with the drum and adapted to cause materials in the drum to be moved up the inclined sidewall thereof upon rotation of the drum in a predetermined direction, a chute or duct extending downwardly at an incline into the drum to terminate with an open end in a lower region of the drum, and adapted to communicate, at its upper end, with a container for storing a supply of materials.

/...


2. A materials feeder assembly according to claim 1 wherein the helical flight formation is attached to the inner surface of the drum.
3. A materials feeder assembly according to either of the preceding claims wherein the helical flight formation is attached to an inner cylinder.
4. A materials feeder assembly according to claim 3 wherein the inner cylinder is supported at its operatively lower end by a plurality of rods angularly spaced apart, which define a squirrel cage type of structure.
5. A materials feeder assembly according to either claim 3 or claim 4 wherein the inner cylinder is secured at its operatively upper end by means of outwardly extending arms, and wherein the upper end of the drum is suitably flanged to receive the arms which are releasably attached thereto.

6. A materials feeder assembly according to any one of claims 3 to 5 wherein an inwardly directed flange or ring is located near the operatively upper end of the inner cylinder to prevent any material emerging from the feed chute from exiting directly from the upper end of the drum assembly.
7. A materials feeder assembly according to any one of the preceding claims wherein the drum is cantilever mounted at its lower end on an axle rigid with the drum.
8. A materials feeder assembly according to any one of the preceding claims wherein the drum is located within a housing through which the feed chute or duct extends, and wherein the housing has an outlet beneath the discharge end of the drum.
9. A materials feeder assembly according to claim 8 wherein the housing is substantially sealed to atmosphere.

/...

10. A materials feeder assembly according to claim 8 wherein the housing is purged with an inert gas.
  
11. A materials feeder assembly according to claim 1 and substantially as described in the accompanying description with reference to either Fig. 1 or Fig. 2 and Fig. 3.
  
12. A rotatable drum according to any one of the preceding claims which is specifically adapted to cause materials in the drum to be moved up the inclined sidewall thereof upon rotation of the drum in a predetermined direction.

DATED THIS 10th DAY OF FEBRUARY, 1984

  
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JOHN & KERNICK  
for the Applicant