

Title (en)
FLEXIBLE TELESCOPIC PROP FOR BUILDING MATERIALS

Publication
EP 0472545 B1 19930825 (DE)

Application
EP 90906874 A 19900510

Priority
• DE 3915837 A 19890516
• DE 4000310 A 19900108

Abstract (en)
[origin: WO9014499A2] A structure for supporting mining cavities in underground mines and tunnels comprises props or elements (1) filled with building material (6). The elements (1) are composed of several telescopic inner and outer tubes (4, 5) which can be braced against each other and against the roofs and floors by means of a suitable mechanism. The telescopic prop is first braced in this manner and then filled with building material (6). The building material (6) can be rapidly and advantageously hardened by means of a drainage device, in particular drainage boreholes (49, 50), and therefore a structure of this type can absorb high supporting forces. The core of building material is secured by the outer and inner tubes (5, 4) which act as a sheath. A reinforcement (45) can also be inserted in order to further increase the supporting forces to be absorbed. This telescopic prop comprising individual inner and outer tubes (4, 5) can be used to obtain a multiple-section supporting arch (89). Each end face of the inner and outer tubes (4, 5) carries connecting butt straps (85, 86) with boreholes (88), so that a very simple articulated joint can be obtained.

IPC 1-7
E21D 15/18

IPC 8 full level
E21D 15/18 (2006.01); **E21D 15/48** (2006.01)

CPC (source: EP US)
E21D 15/18 (2013.01 - EP US); **E21D 15/48** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB IT LI LU NL SE

DOCDB simple family (publication)
WO 9014499 A2 19901129; WO 9014499 A3 19910221; AU 5553590 A 19901218; AU 638249 B2 19930624; CA 2057922 A1 19901117; CN 1028889 C 19950614; CN 1051608 A 19910522; CS 239090 A3 19920715; DE 4000310 A1 19910711; DE 59002491 D1 19930930; EP 0472545 A1 19920304; EP 0472545 B1 19930825; ES 2044581 T3 19940101; HU 904363 D0 19920428; HU T61381 A 19921228; MA 21845 A1 19901231; PL 164180 B1 19940630; PL 285206 A1 19910114; US 5240354 A 19930831

DOCDB simple family (application)
DE 9000330 W 19900510; AU 5553590 A 19900510; CA 2057922 A 19900510; CN 90104394 A 19900516; CS 239090 A 19900516; DE 4000310 A 19900108; DE 59002491 T 19900510; EP 90906874 A 19900510; ES 90906874 T 19900510; HU 436390 A 19900510; MA 22111 A 19900515; PL 28520690 A 19900516; US 77361592 A 19920113