Modern Coal Mining Methods and the Crandall Canyon Disaster

by

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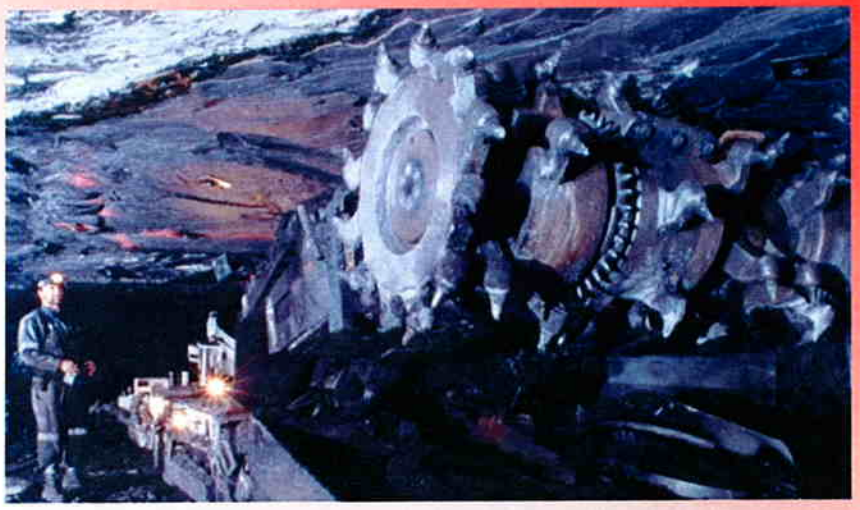
Some things have changed…



…and some things haven't.

Underground Coal Mining: The Challenges

- Access
- Ventilation
- Drainage
- Ground Control
- Gas Control

Access

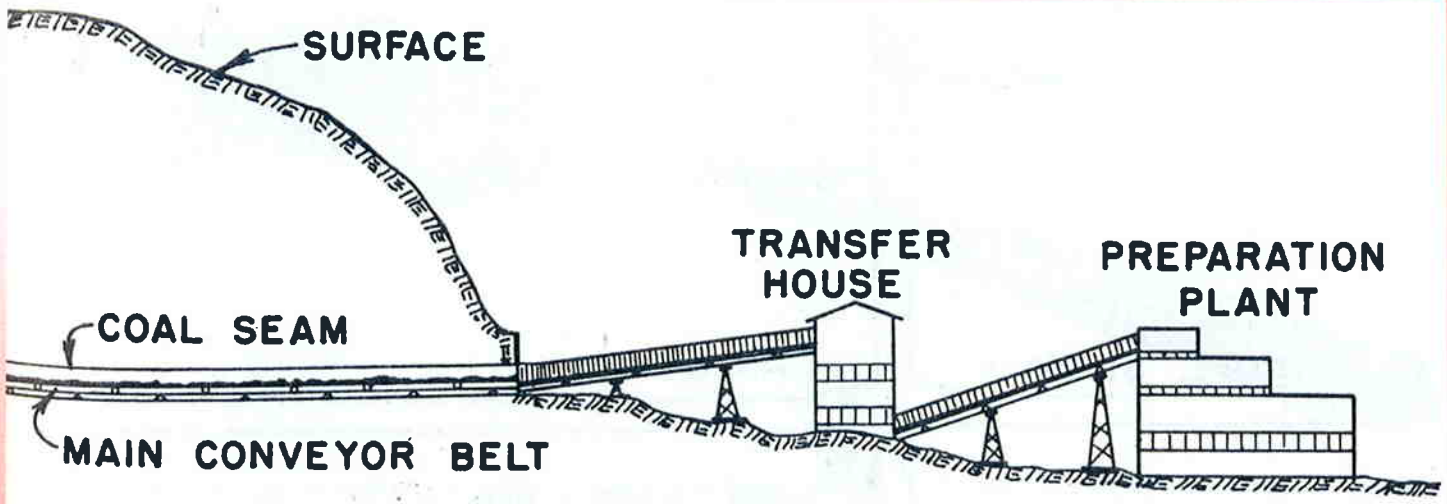


Fig. 1—Drift mine.

Access

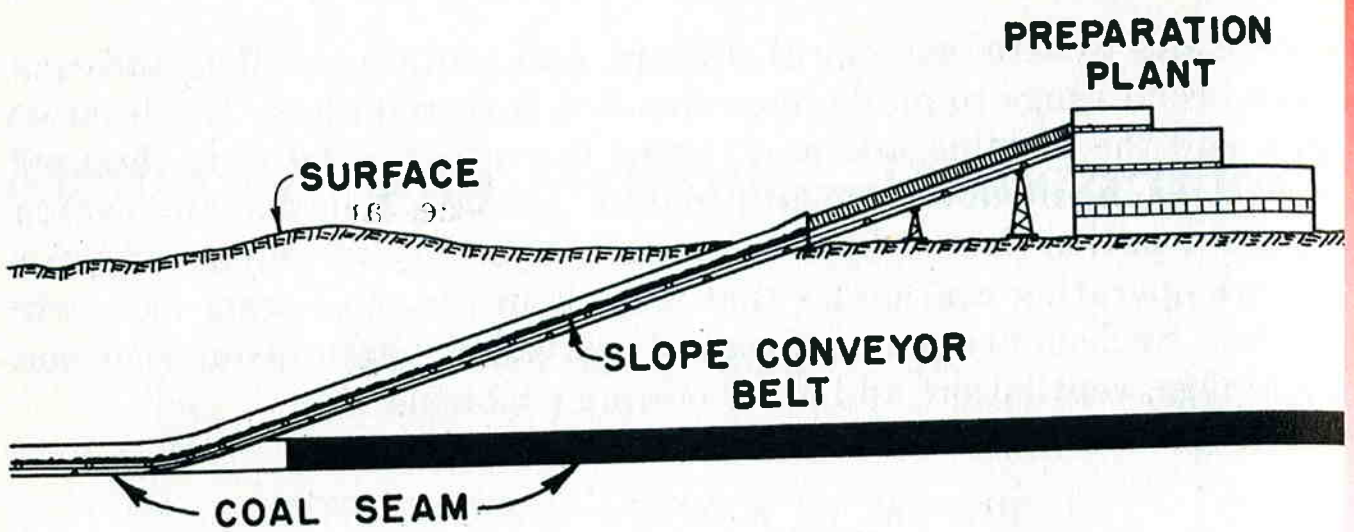


Fig. 2—Slope mine.

Access

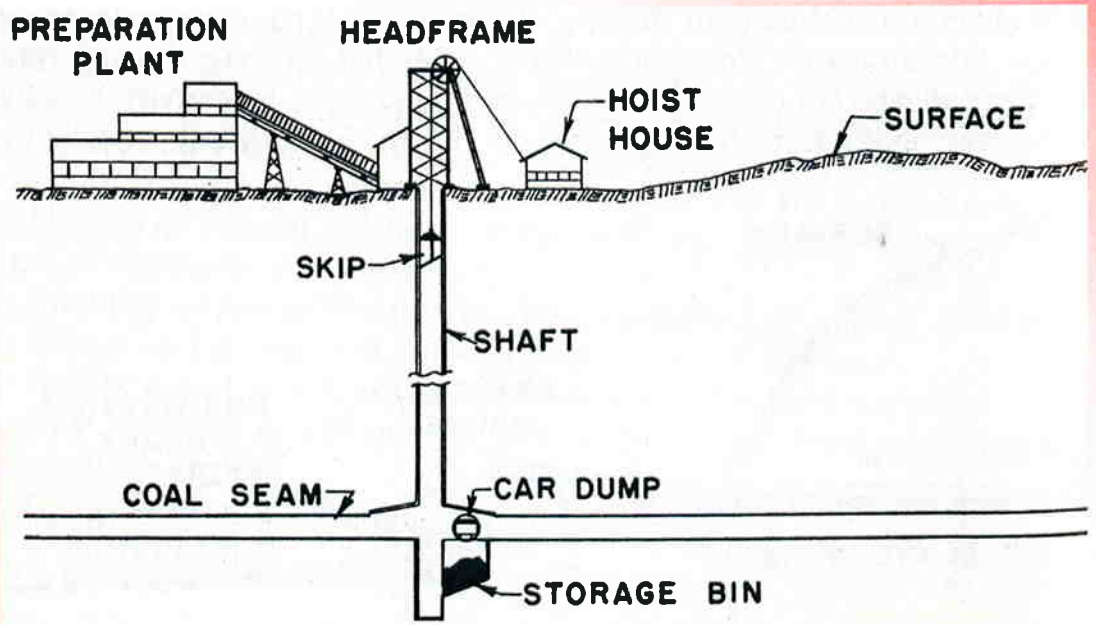


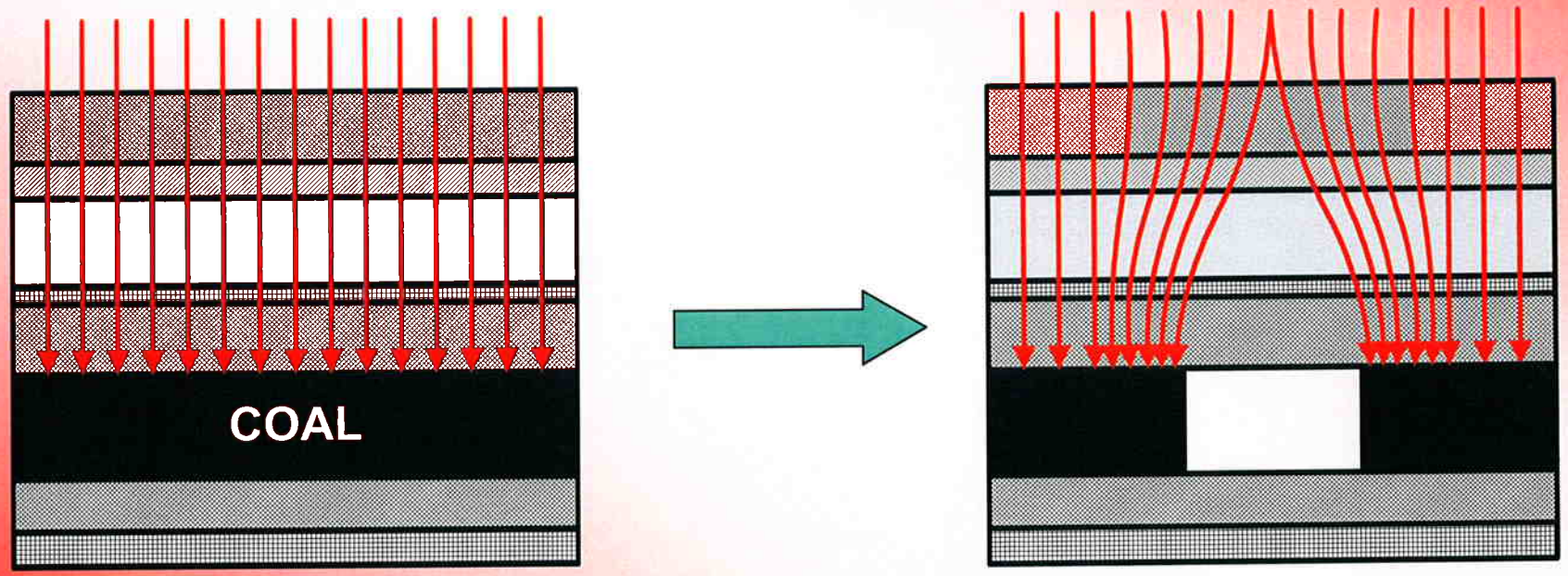
Fig. 3—Shaft mine.

Ground Control

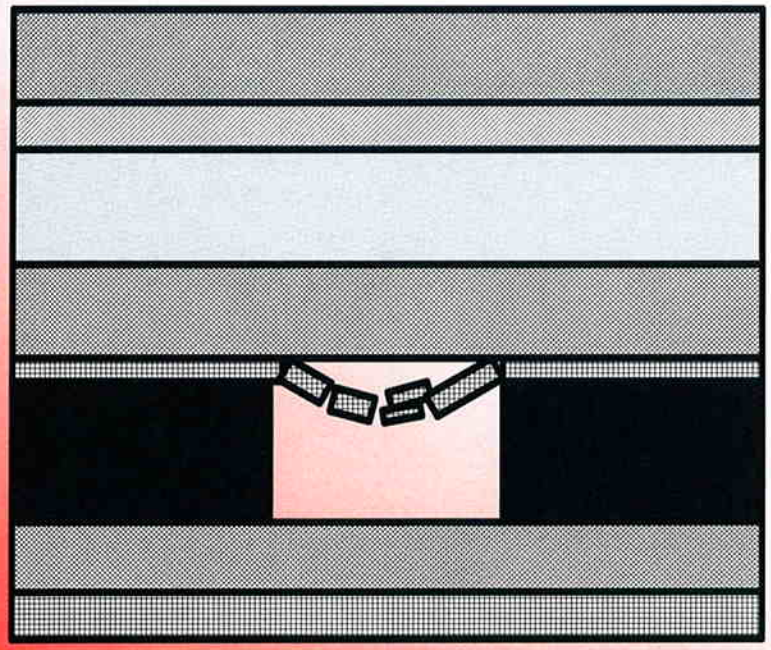
Ground Control:
Equilibrium is Disturbed

Ground Control:

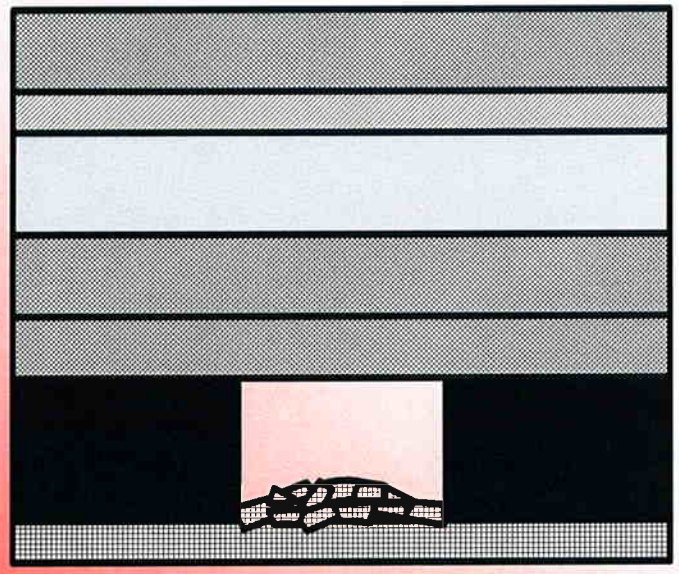
- Equilibrium is Disturbed
- Force is Redistributed
- The Weakest Member Fails

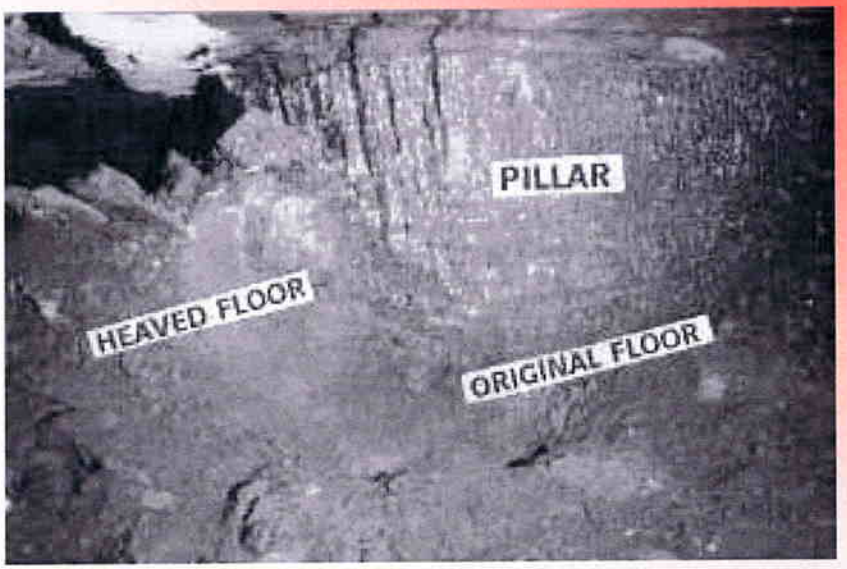


Ground Control: Roof Fall

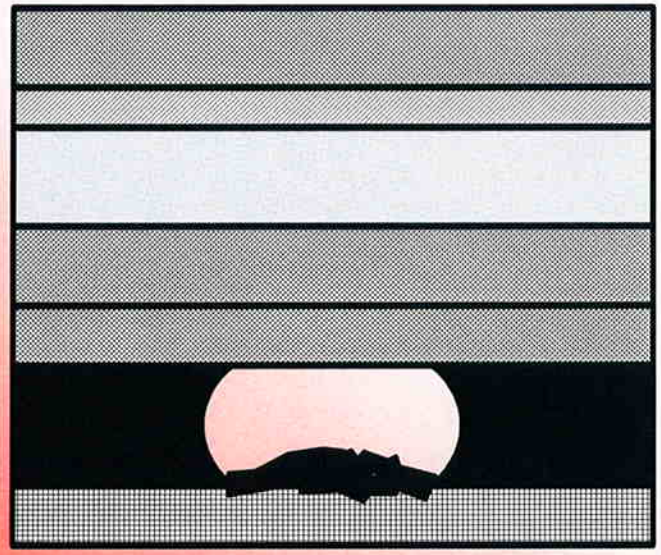
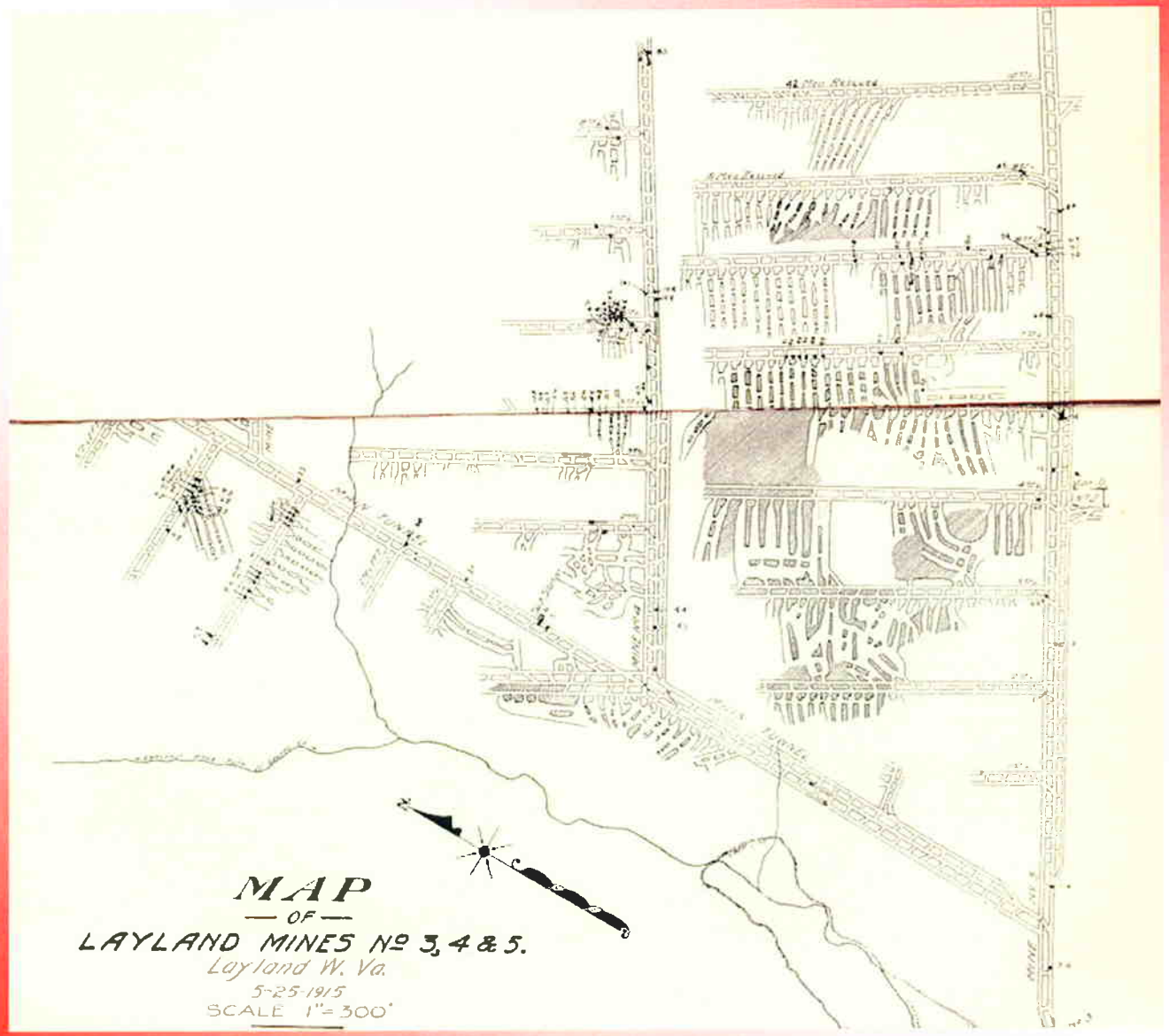


Ground Control: Floor Heave





Ground Control: Rib Burst



Mining Maps