

A3424 / B1.43.1-3

A

marv-o-dex →

ref-verw
E Z 85

AFRIKANERS

The logo features a stylized, calligraphic monogram at the top, resembling a combination of 'C' and 'X'. Below it, the word 'Croxley' is written in a classic serif font, with a registered trademark symbol (®) to the upper right of the 'y'.

A - Z (203 x 127mm)

JD 1430



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Review of literature fr. — ('Afukensis?')

If the figures of the Medical Comⁿ. to be believed
ie length of time in hard rock mines to contract
disease is ^{on average} 8 years. not since 1907 strike
32% S.A. born cd. not have contracted disease since
1907. early or moderate fibrosis. class II

+ another 4 years or ('somewhat less') to
enter class III

ie 12 years before incapacitated or death.
UG 19, # 1912 pp. 15-~~18~~¹⁹, pars. 30 — ~~45~~. 45.

class I

B

marv-o-dex →

ref-verw

E Z 85

BARLOW-RAND d

Jennings advocates - hoses - more expensive but -
don't know w/ more injurious.
dust is!
need to train miners - hose.

C. H. E., v. 244, File 107H., S. Jennings to H. E. 9 Oct. 1906. - re
Circular No 23, 1906 of C of Mines report)

Jennings' report:

gives list of atomisers: Beattie's, McAdams, Star & Climax

Each rock-driller uses one or other. Managers report that it is nec.
to have supply of clean water at each level to make sprays
work well & continuously.

They also report that miners dislike sprays. Their use acids to their
work. Boys who work at chuck & also spanner boys object to
use of sprays. Wet clothes - spray in rise.

In 3 of our mines the pump column has been trapped & pipes on
certain levels lead to working faces. Small hoses with fine
nozzle used to force water into the hole being drilled or onto broken ground.

This more expensive in first cost. But then spray is not subjected to
same objection of making atmosphere damp and no air used with water.

~~Sumps & Sinks, 282 No. 11~~

As much trouble as sprays & just as liable to objection to by miners if not properly looked after pumps liable to let water into bottom of mine

Many managers report - miners claim sprays lead to asthma, bronchitis, pneumonia. No figures to prove or disprove

To most men a moist clammy mining atmosphere more disagreeable than dry, warm one. Therefore they ascribe to the former defects it may or not possess

- ∴ leads to choice: more or less dust laden atmosphere
- " " " damp laden atmosphere

We know dust-laden injurious to health: Insufficient knowledge as to whether a damp atmosphere w/g is or not injurious to health.

I think - [we] must abate dust - but with as little inconvenience to miners from dampness as poss.

Best way is by training miners in spraying apparatus we have if any universal recognized improvement is made - we can adopt it.

Sprays - MP or Pneumonia - Petition to Col. Sec

Phthisis & Precautions VS T.M.A's Objections 1906 to Col. Sec.

[H.E., v. 258, File 154M., T.J. Britten to Pres. Ex. Ch. of
Mines, 18 June 1906.]

petition condemns methods now being adopted - remedy worse than disease itself
'miners are now simply confronted with a choice of evils'

either old conditions with dread of M.P. or adpt precautions which are said sooner
or later to ensure pneumonia - atmosphere saturated with moisture..

1906

Jenning, S. — Reply to C. of Mines re T.M.A.
Complaints 1906

[H.E. vol 244, File 107 H, S. Jennings to H.E.
9 Oct 1906] re Circular No 23 1906 of C. of Mines
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This more expensive in first cost. But then spray is not subjected to same objection of making atmosphere damp as no air pressure used with water.

~~As much trouble as sprays and just as liable to objection to by miners - if/property~~ ^{not}
looked after pumps liable to let water into bottom of mine
many managers report - miners claim sprays lead to asthma, bronchitis, pneumonia.
No figures to prove or disprove.

To most men a moist clammy mining atmosphere more disagreeable than dry, warm one.
Therefore they ascribe to former defects it may or may not possess.
Therefore leads to choice: more or less dust laden atmosphere

" " " damp "

We know dust-laden injurious to health. Inufficient knowledge as to whether a
damp atmosphere Underground is or not injurious to health.

I think must ally dust - but with as little inconvenience to miner from dampness
as poss.

Best way is by training miner in use of spraying apparatus we have. If any univer-
sally recognised improvement is made- we can adopt it

THA Memorandum - Webber goes thro' it pt. by point -

1906.

BRA HE Vol 286, file 240v

GE ~~webber~~ to MR Reyerbach - 2nd July 1906.
webber

~~Step~~ Preventive Measures. Blasting.

206, file 2400
2nd July, 1908. (1)

Memo. for Mr. Beyersbach.

re Grievances of Transvaal Miners' Association
against Mining Companies for alleged unhealthy
mine conditions.

-----oOo-----

With reference to certain complaints made by the Transvaal Miners' Association to the Commissioner of Mines in May last, I beg to advise as follows, dealing with the complaints in the order presented:-

1. Atomisers.

The use of atomisers for allaying dust and dynamite fumes is not carried out to the fullest extent, in fact comparatively little use is made of them in the mines of this Group, as, although the Companies are provided with various devices for this purpose, we have found it next to impossible to get our men to use them. Their excuse is that the dampening of the air is more serious to them than the inhalation of the dust and fumes. Personally I believe much benefit would be derived if the use of dust allaying devices were made more compulsory, as, although the air may be moistened to some extent, I have never heard of any serious illness arising from this cause at any of the mines where the atomiser has been in use.

2. Want of adequate ventilation, and non-enforcement of the law regulating mine ventilation.

The grievance of want of adequate ventilation in the mines is, I think, exaggerated, as in my opinion the ventilation of the mine workings of the Rand is much superior to that of most metalliferous mines in other countries. The better

BRA, HE, vol 286, File 240v

Re Webster to Mr Reyersbach.

Card 1.

ventilation of the Rand Mines does not of course mean that there is no cause for complaint; on the contrary, we know that in certain parts of a mine the air circulation is greatly restricted, but these are places undergoing connection, boundary stopes, etc., which, as every miner knows, it is almost next to impossible to thoroughly ventilate without an elaborate system of artificial ventilation, which is seldom justified in putting in on account of the limited time and work done in these places. The next best thing for such places is the use of compressed air drills entirely, and so far as our own Group is concerned this is observed pretty generally.

Another complaint is the carrying on of development faces by hand, which, in the absence of enforced ventilation, is very unhealthy, as the fumes die away at the spot and vitiate the air. In the mines of this Group very little hand work is done in this respect as it is generally the custom to use rack drills in this class of work.

Speaking of the milling Companies of our Group, all of them have two or more shafts, and regular Level connections between same. In the cases of the Goldenhuis, Jumpert, Crown and Durban Deeps, increased ventilation is had by reason of connections with the adjoining Companies. At the Nourse Mines the ventilation is the best, as through the amalgamation with the old Henry Nourse Company, connection is had with the surface at several points through old shafts and workings.

The compressing of air in badly ventilated engine rooms, and the use of inferior oils in air cylinders, are sources of legitimate complaint, and the question of remedying these evils should be taken in hand at once.

I do not think the complaint of poor ventilation due to the prevalence of certain winds and atmospheric conditions

BRA. iHE, vol 286, File 240 v GE Webster to Mr Reyersbach

Card 2.

should be considered a just grievance against mining Companies, as after all it is a condition that does not often occur and then, so far as I have observed, not to an extent to cause serious disturbance to the natural underground ventilation.

The Government mining regulations deal with the question of ventilation, and I think the Mine Inspectors can be relied upon to use their discretion in enforcing the law: they have the authority to enforce the withdrawal of workmen from any place where in their opinion the air is not sufficiently healthy for persons to work in.

3. Change Houses.

The absence of suitable Change Houses is certainly to be deplored, as I believe every mine should be equipped with a properly constructed place for the convenience of the miners when issuing from underground. In this respect all of our mines are very well off.

G. E. Webber.

General Manager.

Phytinus Pucantius vs - Ventilation - bad - efficiency.
C.B.R.A. H.E. vol. 286 File 240V, memo called Ventilation
No 32. by H.J. Martin 26/5/09

natural
connections with outcrop
leakages out

suggestions

practices

descending air lost.

in cv. volume.

see E.R.P.M. - what's done - eq good eq.

lt more cd. be done.

no Phytinus answer

Phthisis + Mines Careless of. 1906.

[H.E., M 258, File 154 M. 18 June 1906 T.J. Britten
to Pres. Exec. Ch. of Mines, 18 June 1906.]

V. long letter. @NB.

he says inefficient application of devices not devices
gives evidence of men using it
no saturation of atmosphere.
Improvements.

The responsibility now rests with the miner when once he has been
provided with a dust allaying device. It is a responsibility which
not all miners in a 100 is capable of appreciating, & in
my opinion, no good results can be achieved unless he is relieved
of that responsibility which is essentially one that the manager of
the mine should personally undertake.

Same to-day as attracted my attention 7 years ago - heavy
mortality among rock drillers.

Law 12 1898 - Mining Regulations

Blasting: Chapter X. 97 - certificate.
90 - assistance of reliable white or coloured

persons when acting under his supervision.

Coloured person = African or Asiatic native or any other coloured person.

Certificate for Engine Drivers Chapt. XII. (104)

winding engine - raising & lowering persons
Certificate of competency

no coloured person may hold an engine driver's certificate of competency.

best & most regular workers most frequent victims — & it is at least poss. that to this cause may be attributed the deterioration in this class of white labour. which so sadly hampers the industry to-day, while it is not to be expected that the prevalence of a dangerous & often fatal disease can prove an additional attraction to labour of any kind, whether white, black or yellow.

includes testimonial of T. H. Leggett of 23 Aug 1906
dust spray sound, practical & efficient in combatting
Pulmon

Eastern Mine at the vertical shaft no connection
with other mine workings as yet. Fresher for dust &
air to be better than in any similar deep level mine
Rand has visited.

Britten + TMA Petitions to Col. Sec. + Death from M.P. or Pneumonia. -- Miners need reaching June 1906.

Miners inefficient in using devices & careless: BLAME. Depends his spray.

(BRA, HE 258, file 154 M, T.J. Britten to Pres. Exec. C. of Mines, 18 June 1906)

petition sent to Col. Sec. to Col. Sec. dealing with prevention of M.P.

petition condemns methods now being adopted - remedy worse than disease itself. "Miners are now simply confronted with a choice of evils" - either old conditions with dread of M.P. or adopt precautions which are said sooner or later to ensure pneumonia - atmosphere saturated with moisture.

what's ever difference of opinion amongst medical authorities as to principal origin of disease called M.P. it will be admitted that report of M.P. Commission justifies use in searching that primary cause of disease is in fact, of minute particles of dust.

My own personal observation (even before Commission appointed, none of evidence adduced subsequently alters my opinion - as long as dust circulates so M.P. will be a scourge.

In spite of exhaustive enquiries and experiments - no suggested means of taking dust without aid of water - and dampness miners are complaining of.

the latter's object is to show that it is inefficient application of various devices rather than any inherent defects in the devices themselves.

All necessitates use of water but not in sufficient quantities to be injurious to health if properly supervised.

See evidence of: J.S. Fisher (Par 520)
J.P. Rosser (Par 1035)
Evan Lewis (Par 1148)
David Jones (Par 1180)

All unanimous that dust can be to a great extent avoided by use of water.
None complain of atmosphere being undly. saturated.
All say improvement in their health which followed application of sprays.

I also made use of an atomiser - I invented it - deep level portion of
Welhuter - beneficial results. - atmosphere clear of dust - and ventilation
only improved (see enclosed copy of Mr Leggett's report) - no complaints
from miners but appreciation of improved conditions. - did not simply issue
atomisers to miners with instructions on how to use them. Many were
sceptical - ridiculed idea "nuisance" - I made it my business because of
their distaste for innovation to be careful in supervision - and prove
efficiency to one or two "picked" men. - In these cases prejudice overcome.

I realised necessary to appoint a man whose duty it was to attend to the
sanitation, ventilation and especially use of sprays throughout whole
mine. This man was directly responsible to the underground foreman.

certain amount of extra expenditure - was - but justified by results. -
health and increased efficiency of its "white labour" more than compensates
a small increase in working costs.

Therefore either miners have no just cause for complaint and in view of their petition this hardly seems possible or the are suffering from carelessness on their own part. It also to be absolutely fair, because they are expected to perform duties of which experience show them to be totally incapable.

The responsibility now rests with the miner when once he has been provided with a just allowing vehicle. It is a responsibility which not one man out of a hundred is capable of accepting, and, in my opinion, no good results can be achieved until he is relieved of that responsibility which is essentially one which the manager of the mine should personally undertake.

Same today as attracted my attention seven years ago - then and now - heavy mortality among rockdrillers.

Best and most regular victims, and the most frequent victims and it is at least possible that to this course may be attributed the deterioration in this class of white labour which so sadly hampers the industry today, while it is not to be expected that the prevalence of a dangerous and often fatal disease can prove an additional attraction to labour of any kind, whether white, black or yellow.

J.H. Ledgett's testimonial: 23 August 1908

Dust spray is sound practical efficient towards combatting M.P. at Eastern Mine at the vertical shaft - no connection with other mine workings as yet - free from dust and air to be better than in similar deep level mine on Rand I've visited.

BROWNE
R. E

The day's pay machine man receives 25s., and is a poor worker as a rule.

The above accounts indicate that if an adequate supply of efficient white labour was available at a cost of 25s. per shift, the net result would be an immediate reduction of 25 per cent. in the cost of machine stopping without further change in the system of work.

The above is an extreme instance of high cost of supervision. In other branches of the work, the cost, though still high, is much less in proportion. In hand-drill stopping one white man directs 25 or 30 Kaffirs.

There is much discussion on the Rand, and opinion is divided, concerning the relative economy of machine and hand stopping. The accounts do not show much difference under existing conditions. But with reasonable efficiency and less costly supervision, machine stopping would be incomparably cheaper. There are cases where, owing to narrow width of reef, better value is obtained by narrow stopping by hand, but in the average case it will eventually be found that the Rand rock is much too hard for economical hand drilling even by Kaffirs.

Compared with the California mines, the Rand mines employed (in 1904) about three times the number of men, white and coloured, per ton of ore milled. But this is not a fair comparison since it includes the men engaged in sorting and in workshops, which are not represented in the California mine, where there is no sorting and where much of the repair work is sent to custom shops in the neighbouring towns. But making due allowance for all these matters, the Rand Mines, Ltd. employed, during the period considered, 2.5 times the number of men per "comparison ton" of ore. At the present time, since resorting to hand stopping with Chinese labour, they employ four times the number. And in this connection it must be further borne in mind that the Rand mine is operating with two to four times the stamping capacity. The inefficient use made of the labour is apparent even to the superficial observer.

Hand Stopping —
Braune & Ross. E
Chinese — not Contract — Day's pay —
p. 332.

Working Costs - Reduction of NB. to all parties - Broune 1906.

To share holders doubling dividends
Owners of undeveloped properties a great increase of present value.
To community at large it means a great increase in the output
and a rapid rise in prosperity.

Broune, p. 296.

- "
- To the Shareholders of the operating ~~business~~ ^{properties} it means doubling the dividends
 - To the owners of undeveloped properties it means a great increase of present value
 - To the community at large it means a great increase in the output and rapid rise in prosperity".

Efficiency *chine* — but not on Ross Browne lines — June 1906.

Frazer & *gives* p. 164, L. Phillips to Messrs. Wambler, Bait & Co, 18 June 1906.

In season and out of season we are pressing the working cost and efficiency question with our own managers, without inviting any public discussion upon the Ross Browne lines yet. I have dealt with the reasons for delay in taking action on that account so fully already that it is not necessary to traverse the ground again today, and I only touch this question to some extent in order to post you as to what is being done, and to show you that we are very fully alive to the necessity for doing everything that can decrease the costs and bring up the profits.

I shall be heartily thankful when the Constitution comes out and our elections are over, as then we shall be able to push the work in the way it ought to be pushed, without bothering ourselves much about the effect from a political point of view.

Policy - no wage Reduction - Ross Browne - April 1906.
cf. Therpe. Wenner / Phillips.

BRA, HE, v. 145, F. Eckstein to L. Phillips, 20 April 1906.

Ross Browne has just finished his report and I enclose copy for your perusal. I have only glanced at it so far, but it gives me the impression, that it is written on such broad lines, that it could be read now before a scientific body, without inciting the feeling of the white men. Of course nice quiet discussion would eventually bring out the glaring points & defects of the white labour on the Rand & that is where the rub comes in. I have naturally not forgotten the policy laid down in Beit's room viz not to do anything until your elections are over. On the other hand there appeared in the Times of last Saturday a telegram from Johannesburg giving an account of a labour meeting held there for the purpose of bringing about an 8 hour shift. Agitation for this will certainly grow and will no doubt eventually have to be conceded as an eight hours day work is the tendency all over the world. Now could this not be used in conjunction with Ross Brown's report.

Please think this over carefully & let us have a cable after a time, whether you advise us sticking to the policy laid down or doing nothing for the present, or whether you would advocate publication of Ross Browne's paper.

Phthisis & Strikes 1902 - Village Main Reef.

see Wood John }
a, Perrow. }

T.M.A deputation to Milner

Whites: Inefficiency of — Phillips' opinion

1906 & 1908

See also General Box — Unskilled Whites.

(Fraser & Jeeves p. 163)

(L. Phillips to Winstanley 18 June 1906)

Employing Dutch.

Small scheme.

(Ibid, p. 169)

Phillips to F. Eckstein 12 April 1908)

Opinion unchanged — reduce Nos. of highly paid. — working costs reduced
& get no value from them

respond to appeals of govt.

argument about skilled, semi-skilled & unskilled — SPECIALISTS ONLY

earnings: — do & shd. earn

leave country at low rates of salaries at 7/6 or 10s.

Efficiency - Agreed Ross E. Browne - dynamite - Miners not efficient.

Grey The development of the gold mining industry (1902-4) p 260

[Constructive criticism of the efficiency of labour on the Witwatersrand mines was given by a visiting American engineer, Ross E. Browne, who had occasion to collect information on the subject of working costs during a stay of twenty months, 1904-5, on the Witwatersrand. He found that the prevailing high wages of whites on the mines were, partly, due to the high cost of living. The consequent high working costs were aggravated by the inefficiency of the white miners. In one investigation ten out of

seventy contractors were pointed out as efficient miners. The work of the ten men was followed through a number of stopes, and showed 27 per cent. greater efficiency than the work of the sixty. The explosives consumed per ton of rock by the ten was seventeen per cent. less than by the sixty. The ten men received in wages R4.00 per shift, against R2.80 for the sixty men.¹²⁾ In other words, although the inefficient worker received

thirty per cent. less pay, he used seventeen per cent. more explosives - a very expensive item. Furthermore, in the general execution of his work he was twenty seven per cent. less efficient. Thus working costs were, indeed, increased to a greater extent by inefficiency than by the high wages.⁷

Chey The development of the gold mining industry (1902-10) p261

L Ross Browne praised the engineers for their methods of prospecting, testing and developing the reefs, and for the character of the works - the machinery, buildings and appliances. But he thought that the engineer had failed in his handling of the labour, because the underground labour, especially, was deplorably inefficient.¹⁴⁾ This view was confirmed by the Government Mining Engineer when he explained the high accident rate at that time, 1905: "Our so-called skilled white miner leaves a great deal to be desired as regards general and satisfactory mining knowledge.¹⁵⁾"

Inefficiency of System - Fat - Ross Brown see

Efficiency Drive.

Wage Reductions — TG 2, 1908, p. 687, statement
of F. Coan.

Phthisis & Precautions Vs — Blasting. — Str

Limit to 8 hours.

C



ref-verw

E Z 85

Crown Reef

Crown Roof Corner House.

Pneumonia

Tropical Africans - see under Work of - Spragas etc.

THE STAR

THURS OCT 11 1906

B9

MINERS AT THE CROWN DEEP (Pg 1)
 DISPUTE SETTLED
 THE FACTS OF THE CASE
 THE STAR THE TRIBUNE THURS Oct 11 1906

We understand that the so-called dispute between the management & the miners of the Crown Deep has been satisfactorily settled. A general impression exists that the management was endeavoring to force the miners to work three rock drill machines instead of two, & that the miners resented this course. This is however an entirely incorrect version. The actual facts are that, at the beginning of this month, the miners were given the option of running three machines, and four men at once agreed to do so. A few days later, four more men - making eight in all - were running three machines. No pressure whatever was brought to bear by the management on the men, and the miners availed themselves of the offer because the rate of pay per fathom was not reduced, and they were thus ~~at least~~ able to earn considerably

(2)

higher wages than before. In all cases where
one man was supervising three machines the
work was taking place in well ventilated
places, so that the entire machine could be
reworked being about the conditions
imposed for health. The idea that the
quantity of the ~~job~~ three ~~drills~~ machines to
one man will show other rock drill men
out of work is erroneous, for the more
economical it is to do ~~the~~ work machine
drills, the greater number will be used, and
the more men will be at work. The increase
of men will, moreover, not be
limited to the mining class only, because if
a larger number of drills are used more
rock will be broken & the mine will
in consequence, be enabled to work on
a larger scale and to employ a greater
number of hands in every department. As is
well known, three drills are now being
superseded by one man on a very large

(3)

number of men on these fields, and we understand that in all cases the men have labor too this voluntarily, & have earned considerably higher wages thereby

as to how our Dept is covered & gather that the men were quite satisfied until the Mines Union stepped in & presented them from running more than ~~250~~ two drills. The argument used by the Mines Union is that one man is physically unable to supervise a larger number than two drills. Last night the men at ^{the} Crown & Feet decided not to run more than two machines, and the matter rest here at present. It will, we understand, continue optional for the men to three machines should they desire to do so.

3

of mines or these fields, and we understand that in all cases the men have taken to this voluntarily, and earned considerably higher wages thereby.

As far as Crown Deck is concerned we gather that the men were quite satisfied until the Mine Union stepped in and persuaded them from running more than two drills. The argument used by the mine's Union is that one man is physically unable to supervise a larger number than two drills. Last night the men at the Crown Deck decided not to run more than two machines and the matter rest here at present. It will we understand, continue official for the men to operate three machines should they desire to do so.

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