

UNIVERSITY OF CAMBRIDGE

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Telegraphic address: Geophysics, Cambridge.

Professor H. T. Hall,
Dept. of Chemistry,
Birmingham University,
Proud, U.K.

April 27th, 1977

Dear Terry,

When I was home at
water our Christmas I had asked Mr. King
an instant messenger, whom you probably
remember, to re-assemble the water cooling
system for the small 200-ton cubic press.
A.C. Bores and lines were part with me
to say that all is not well. On trying to
fit all the brass connectors back onto the
welding elements King found that the two
fittings from runs B and run F were hitting
each other on compression. On closer inspection
King saw that the elbow, marked on runs
E and F and which was obviously meant to
make up, was mispositioned by 90°. I
am enclosing some drawings of the situation
made by King. They also show how King was
temporarily thought of solving the problem of
avoiding the collision of the fittings on closing
the press. Obviously it would be too difficult
for us to rotate any of the elbows with
the guide pins back into their original
position. Maybe you know a more elegant
solution of the problem.

My suggestion to King had been to do away
with the elbows and to use shorter pieces of
threaded pipe to connect straightaway onto plastic
hoops, to avoid obstruction of the x-ray reflections

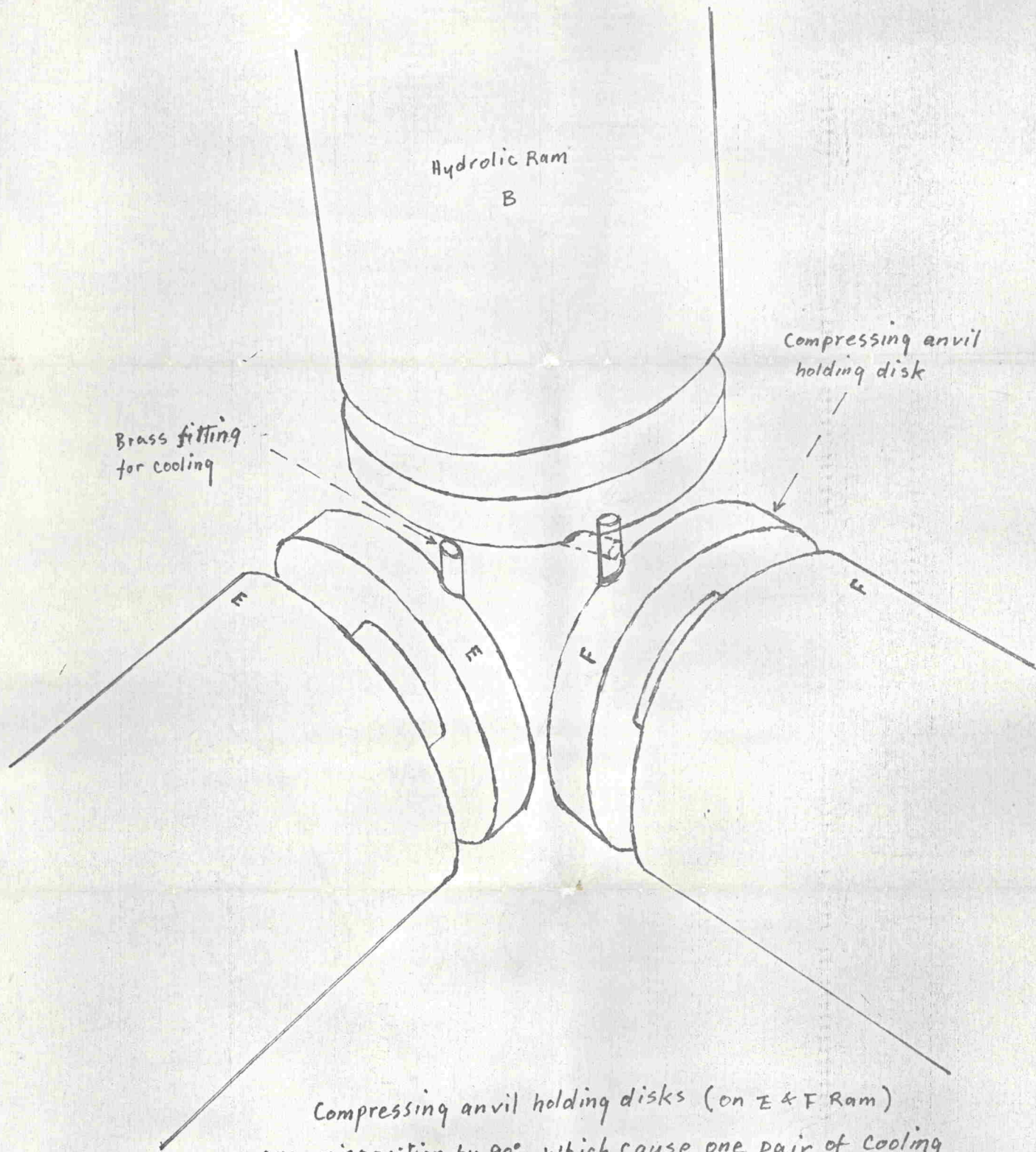
in the space between adjacent binding rings and WC / Co anvils. Could the threaded portion of the water channels be extended further into the collar? Or is one might use a differential arrangement of adaptors inside them and ~~extend the~~ make the connection with thinner brass fittings and thinner plastic hoses, so that no metal connection would reach the surface of the collar.

However, I was concerned about how the misalignment could affect the alignment and has been such a problem in our x-ray adaptation. Do you think it can stay like that? I should be grateful if you could let me have your opinion on the main cause of the apparent misalignment of the gaps between adjacent anvils through said x-rays have to pass when the samples are under high pressure. Do you think this now is would help if I would acquire a completely new set of anvils and binding rings for the either press? In this case one would be able to do something about the cone angles.

I am having a very interesting time here with studies primarily related to the earth's core. I also have written up some of the work we did on ferroelectricity and on melting of basalts.

Hoping that this letter finds you well with best wishes,

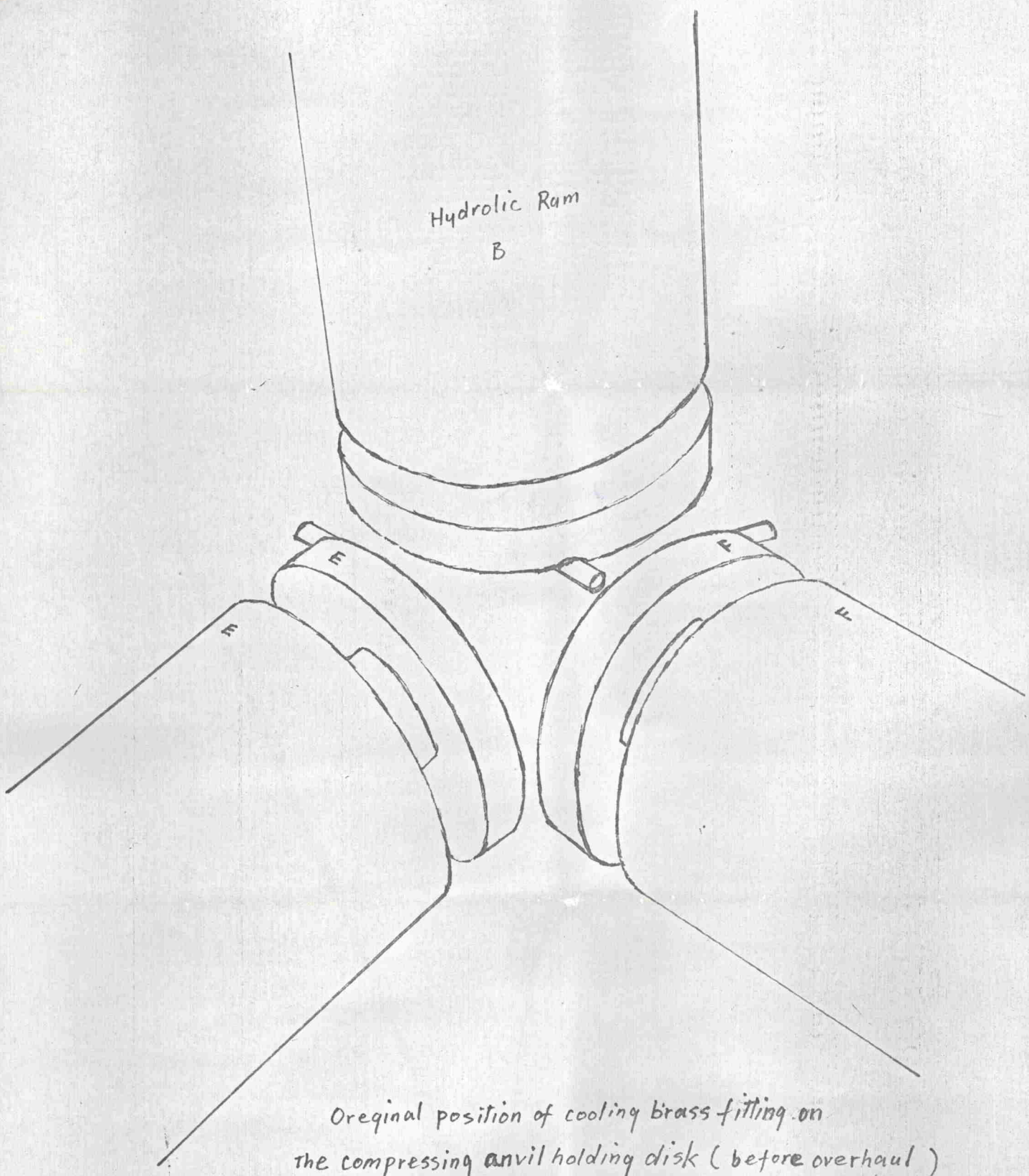
Yours sincerely,
Richard.



Compressing anvil holding disks (on E & F Ram) are misposition by 90°, which cause one pair of cooling brass fittings hit each other, when the Cubic Press is operated.

fig 1.

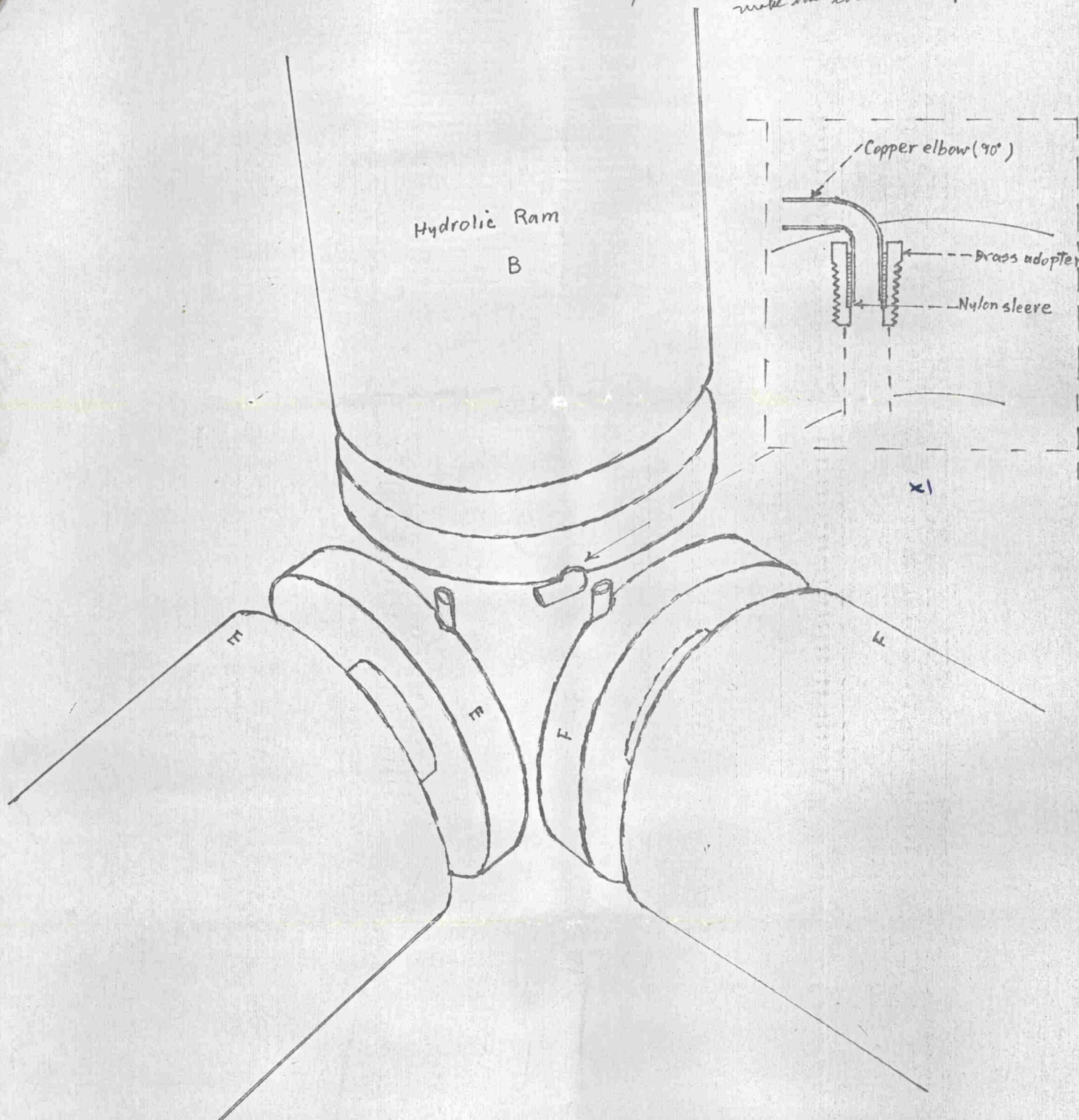
Hydrolic Ram
B



Oreginal position of cooling brass fitting on
the compressing anvil holding disk (before overhaul)

fig 2

would you use rubber stoppers in or plastic hoses in all of the holes to make the connection?



Temporary modification of cooling connector on (Ram B) Compressing anvil holding disk.

fig 3.

x1 would you use rubber stoppers in plastic hoses in all of the holes to make the connection?

the inner brass fittings and the inner plastic
hoses, so that no ——— connection would reach the
——— ^{or} of the collar. 2

However, I am ——— concerned about how the
mismatched could affect the alignment ———

——— problem in our X-ray adaptation.

Do you think it can stay ——— that? I would be
the grateful if you would let me have your
opinion on the issue ——— of the apparent misalignment
of the gaps between adjacent anvils ——— X-rays
have to pass when the samples are under high
pressure. Don't you think that it would help if ———
would acquire a completely new set of
anvils and binding rings for the little press? ——— this ———
one would be able to do something about the
cone angles.

I am so having a very interesting time here
with studying principally ——— the earth's
core. I also have written up some of the
work we did on ferroelectricity in our work on
of basalts.

hoping ^{that} this ——— finds you well.

with best wishes.

yours sincerely

Helmut

(Schlosser)

April 27, 1977

Dear Tracy,

When I was home at Western over Christmas I had asked Mr Ling, our instrument maker, whom you probably remember) to assemble the water cooling system for the small 200 ton cubic press. A. E. Beck and Ling have just written to me to say that all is not well. On trying to fit all the brass connections — onto the cooling chamber Ling found that the two fittings from ~~row~~ row B and row F were ~~striking~~ striking each other on compression. On closer inspection Ling ^{saw} found that the —, — on rows E and F and — obviously meant to ~~wake up~~, are mispositioned by 90°. I am ~~waking~~ ^{including} some drawings of the situation made by Ling. They also show how Ling has temporarily thought of solving the problem by avoiding the collision of the fittings on closing the press. Obviously it will be too difficult for us to rotate any of the collars ~~into~~ ^{with} the guide pins back into their original positions. Maybe you know a more — solution to the problem.

My suggestion to Ling — — to ~~do away~~ ^{do away} with the elbows and to use shorter pieces of threaded pipe to connect straightaway onto plastic hoses (I — to avoid obstruction of the x-ray — in the space between — and adjacent hiding rugs and WC/co anode. ~~not~~ could this — portion of the water channels be extended for now into the collar. If so ~~our~~ we might use a different — of adaptor inside them and make the connection with

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18 May 1977

THE UNIVERSITY OF WESTERN ONTARIO
Department of Geophysics
Biology and geology Building
London 72, Ontario
CANADA

Attn: Dr. A. E. Beck/Mr. Ling

Gentlemen:

I have translated a letter received from Dr. Schloessin sufficiently enough, I think, to understand the water cooling connection problem with the 200 ton cubic press.

I would like to discuss the matter with Mr. Ling over the telephone. Would you please call me on my home phone 801-374-0300 between 7:00-8:00 a.m. our time (9-10 a.m. your time) or else give me a telephone number and a time when I can reach you? Other telephone numbers on which I may be reached are 801-374-1211 extension 3477 (Brigham Young University) and 801-374-2796 (my machine shop at 1190 Columbia Lane, Provo, Utah)

Thank you and best regards.

Sincerely,

HJH

H. Tracy Hall