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ASTRONAUTICS

Men Live in Space Home

TWO MEN will soon take up housekeep-
ing in the world's tiniest efficiency apart-
ment—a cabin that closely resembles the
capsule that will house future space crews.

The two men will eventually be able
to stay within the eight-by-12-foot cabin
for periods up to 30 days, Dr. Billy E.
Welch of the School of Aviation Medicine,
Brooks Air Force Base, Texas, told scien-
tists attending lectures in space medicine.

The exact date for the first 30-day run
has not yet been chosen, due to flaws
that have snarled smooth operation of the
cabin apartment. Nevertheless, many of
the creature comforts of home will be
aboard when the men finally say good-by
to the outside world for their 30-day stay.

There is one seven-foot bed, with a two-
inch foam rubber mattress, built into the
side of the cabin. There is also one chair
in front of the instrument panel. The
two-man crew will have a coffee pot and
small oven.

The simulated space compartment will
carry a 30-day supply of food, which may
include irradiated or dehydrated food as
well as some canned portions. The men
will have 22½ gallons of water in the
cabin, plus a system that will recycle all
liquids to replenish the water supply, Dr.
Welch said.

Only one-man cabins have been tested
previously, and the time record is prob-

ably held by a Strategic Air Command
pilot who remained in a cabin eight days.
The first men to be chosen for the two-
man experiment will be cabin technicians,
the chief of the space ecology department
said.

They will be watched 24 hours a day
through one-way windows, and television
screens. The "passengers" will be allowed
to communicate to the outside, but they
will receive no responses from the men
on guard.

They will wear ordinary clothes, and
will be allowed to smoke. The men may
read books they bring aboard or listen
to music, individually chosen before the
trip. They may have to listen to the
music with earphones since both men will
not always enjoy the same music at the
same time. Very likely one will have
duties to perform that might be impaired
by such distraction, Dr. Welch said.

Every effort will be made to simulate
the isolation of space. Even atmospheric
noises and disturbances will be superim-
posed on the men's radio circuit.

The new cabin, built by Minneapolis-
Honeywell's aeronautical division plant in
Minneapolis, is an improvement over the
school's one-man simulator in which Air-
man First Class Donald C. Farrell made a
seven-day "moon trip" last year.

Science News Letter, January 30, 1960

SURGERY

Heart Massage Succeeds

A BRITISH doctor's quick action in start-
ing heart massage is credited with saving
the life of a patient who had "died" of a
coronary thrombosis.

The patient is alive and well, some nine
months later.

Heart massage is now a common and
successful technique performed when the
heart stops during and immediately after
anesthesia. However, Dr. R. S. Walton of
Preston, Lancashire, reports in *British Medi-
cal Journal* (Jan. 16) "there is no record
in this country of complete cardiac asystole
from coronary thrombosis being resuscitated
with uneventful recovery and well-being."

(Asystole is an incomplete or imperfect
systole—the contraction of the heart's ven-
tricles by which the blood is driven into
the aorta and pulmonary arteries.)

Time is the important factor in attempts
to revive a person with a stopped heart
following a coronary thrombosis, Dr. Wal-
ton warns. If there is a question as to
diagnosis or if suitable equipment is not
available, an incision should be made in
the chest wall. No bleeding points to
asystole and heart massage can be tried.
If there is bleeding, Dr. Walton explains,
the patient's heart muscle is "most cer-
tainly" fibrillating, or contracting irregu-
larly, and the physician may have time to
wait and try the effects of electrical or
chemical agents to restore normal heart
action.

The irregular heart muscle contractions
—ventricular fibrillation—that followed the
successful heart massage were stopped by
administering procaine hydrochloride, which
restored normal rhythms. Procaine is
known to reduce the irritability of the
heart muscle, Dr. Walton reports, but this
appears to be the first such record of its use.

Science News Letter, January 30, 1960

Questions

ENGINEERING—What is the basis of the sys-
tem "TPR"? p. 69.

METEOROLOGY—What is the Bermuda High?
p. 67.

NATURAL RESOURCES—How many maps did
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PUBLIC HEALTH—What seven flavoring sub-
stances have not been entirely cleared as far
as being safe for human consumption is con-
cerned? p. 66.

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