Penicillin, Latest Triumph of Medical Research, Marks Another Long Step Toward Distant Goal

 It is back in 1929 .
Prof. Alexander Fleming of London discovers that a mold growing in a container which he is using in research has
killed certain germs. Although killed certaingerms. Although Professor Fleming a thorough investienter into a the phenomenon, he takes the time to make a note of it, suggesting that maybe
the mold could destroy germs in human infections. o the mold and in 1944 find it it ef-
fective in human treatment. Penicilheriane; of the pneumonia and diph.
germs: of the organisms cause gonorrhea, gas gangrene In Chicago's modern Museum of Lake Minhigan in Jackson Park, Dr Milan Novak, head of the department of bacteriology and public
health of University of ege of medicine, has established a
public exhibit demonstrating the tion of penicillin.
 Dr. E. J. Carey, under direction of
 re given a graphic picture of man's radual development of curative egetable and mineral substances.
> its physical illnesses: Karl Wilhelm Scheele ( $1742 \cdot 886$ ),
who discovered chlorine, the constituent of common compounds like fruits taste sour, manganese, the
metallic element necessary for plant development, and oxygen, the most Pelletier and Caventou, who in
1820 extracted quinine, the active


## source of certain chemical com pounds for

 pounds ior use in treating leprosy.Bernard Courtois (1777-1838), who Bernard courtois (1777-1838), who
solated iodine in 1811, when he observed that washings from seaweed
ashes gave ashes gave off purple vapors when
reated with sulphuric acid, and then turned into crystals which con-
tained the element, now so useful in ained the element, now so useful in
medicine.
Antoine Bilard (1802:76), who disAntoine Bilard ( $1802 \cdot 766$, who dis-
covered bromine in 1828. covered bromine in 1828.
Moderns as well as oldsters find he museum's replica of the 19th
century American apothecary shop an interesting contrast to the pres
ent, streamlined To say the least, the old apothe
cary shop ranked as a colorful spec enter, what with its big, square ulphide, reddish tincture of serpent contained emery, talcum, manna Of interest is the 19th century doc which he carried in his saddlebag ountry. In the case, one can find



Until Synthetic Method Is Devised, Production Of Penicillin Will Remain Slow and Costly





Prof. Alexander Fleming, discoverer of penicillin, is shown with a
bottle holding cultures of penicillum notatum, as he converses with twe
visiting Turkish dectors in his London laboratory, where he made the quinine, turkey rhe
peppermint, orange peel.
On the shop stands a box of herbal smoking
mixture for cure of catarrh, bron chitis, asthma, hay fever, lung dis hroat and all pulmonary com
plaints, the customer merely bein asked to smoke and inhale it.
Hard by the replica of the old apothecary shop, we find a drug exhibit depicting 19th century medi-
cinal advances, from the discovery
 magical byword. the exhibit dem-
Step by step,
onstrates the processes of producing penicillin: First, there's the stock culture,
with a mold similar to but not identical with green molds found ruits or cheese, shown growing on
jell-like base containing sugar.
Second, the spores (seeds Second, the spores (seeds) from
the stock culture are transterred to
nutrient solution containg a nutrient solution containing sugar,
and they germinate into white wool
I plants. In three days, the mold plants. In three days, the mold
covers the surface of the liquid This mold creates penicillin, whic
collects in the nutrient but not in the
$\qquad$ a maximum amount of penicillin and
the culture is ready for collection If allowed to become too old, the
penicillin in the liquid loses some of itillin in the liquid loses some
Fourth, the frrst step in collecting the peniciline irs st oremope in collecting mold
growth from the liquid by filtration growth from the liquid by filtration,
since the plant itself contains none
of the drug. The liquid thus filtered Din. An slaborate process of ex.
litaction and absorption is used to
tract concentrate and remove the penicil.
lin from the liquid. Fitth, the purifcation process re-
moves objectionable substances. If
left in its form, pencicillin loweses some of of its
strength, but is relatively stable a powder, into which it is converted
by commercial prete by commercial production.
When peniieilin is to be injected into a patient. it is dissoved.
hypodermic syringe is used for in
tramuscular injection, and if intra-
venous injectijo is venous injection is desired, a a blood
transfusion apparatus is used.
Penicilin must be tested regular
ly for melted acar is uniformly inoculated
with test bacteria, which cate
with the with test bacteria, which cannot
grow in the presence of penicillin,
and is placed in a round dish to put in the solidified agar and aliled
with a peniilin solution, which then
seeps outward seeps outward into the infected
mold. The test bacteria grow and
cloud the agar, except where their The size of the clear zone is pro-
portional to the strength of the pen-
icillin. If penicillin is hard to get, it's be-
cause its production is limited by
its is growh. From a large batch o
the nutrient solution only a relative
ly small amount of peniilin is ob
tainable. As yet no synthetic meth tainable. As yet no synthetic meth
od to produce the drug on a mass
scale has been developed, and until
sone civilians' share will be strictly de-
termined by the military and naval
 000 Florey units of venial contains

## spuit

 $\mathrm{T}_{\text {Quiz }}^{\mathrm{HE} \text { new } \text { "'Transatantic } \text { scheduled to }}$ Taiz" show sheduled to
start Apris 1 th romises. to be
be

 Americans know about Brit.
ain and what the,
Rritish know







bonita granville received by RKO players; average
2.634 pieces monthly. The list is
la 2,634 pieces monthly. The list is led
by Ginger Rogers, who gets 3,50 etters a month.
Jack Lannon, Hollywood's best
known fog and rain maker, has now job on his hands. Heker, has a a
signed to handle the special weet signed to handie the special weather
effects which play an important part
in creating the a tmospheric set or Cary Grant's new "None But Three narrow escapes in ralds Three narrow escapes in ralds
ver German targets and in an RAF
crpedo boat are recounted by Dave orpedo boat are recounted by Dave
Olives. RKO Pathe News cameranan who is back after serving for ondent. He kept on cranking his amera during running fights with
he enemy in the air, at sea, and th
the talian campan he Itallan campaign. He lived with
torpedo boat squadron for three
Radio's "Great Gildersleeve"
moved into Hollywood Gromersleeve the San
Fernando Valley, primarily to save
as, tires and time-and two daye
days
ater Warner Bros. sent for
ter Warner Bros. sent for him
do a special picture for the Ca -
nadian government, in the neighbor-
hood he'd just vacated!
ood he'd just vacated!
More than 12,000 individual pro-
ampaigns were broadcast by co-
mbia Broadcasting system on the
ome front in 1943, according to a
cent announcement. The promise
postwar television.
postwar television, in full, nat-
al color, and a plea for freedom
John Loder, host and director
John Loder, host and director of
"Silver Theater" on CBS, can't work
at the same microphone with many
or his guests whether he wants to
or not. It isn't that he wants to be
loof-a fellow
diod-a fellow who stands six feet
hree just can't get together at at at
mike with a five foot glamour girl

It's an April birthday for "First
Vighter,., one of radio's veteran se one of radio's veteran seon its Mutual network. Barbara Lud-
dy was selected as "First Lady" of
radio twice, it 1940 and 43 , tor her performances as the perennial hero-
ine. Victor Borge has been signed to
play the voice of a new animated
cartoon character who is expected artoon character who is expected
to outstrip Donald Duck, Mickey Mouse. etc., in the public's affec.
tions. Victor's Scandinavian accent
ill be Barbara Stanyyck turns blonde or the role of the murderess in
Double Indemnity". "I'd always nettes," she protested.
denty "ut bru-
dendes are considered more $\underset{\text { is right in his element as technical ad. }}{\text { ODDS AND }}$
 Humphrey Bogart picture, "To Have
and Have Not-Haws is ited among
the nation's top game fishermen. . Its

 to the motion picture world her moth
er or ook her calling on popa during pro
duction of "And Now Tomorrow"



| Oath on Bayonet |
| :--- |
| When a Nigerian native enlists |
| in Britain's Royal West African |
| Frontier Force, he is allowed to |
| swear allegiance by touching his |
| tongue to his bayonet, the age-old |
| custom of such pagans who have |
| no holy book, like the Bible or the |
| Koran, on which to take an oathe |

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## The Questions

 What is the facial aspect for hich the Cheshire cat is noted?2. What are a ship's davits? 2. WAC officers and and enlisted personnel wear replicas of the head-
gear of what warrior maiden? Who were the first printers?
. What is the supercargo on a is of the voyage. 7. A cup of wine or the like takby a rider about to depart; Pennsylvania.
n the house of representa

Oath on Bayonet
When a Nigerian native enlists
Britain's Royal West African
in in Britains Royal ese Ais allowed to
Frontier Force, he
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custom of such pagans who have
no holy book, like the Bible or the
Koran, on which to take an oth


## thsthen!丞

 is fact


No lee-bar Needed!

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MONEY CANT BUY

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& \text { ve me death." }
\end{aligned}
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