The Oldest and Reliabla.<br>Geer \& Cummins<br>Mentivere of Every Avenpiption.<br>\section*{mumys.}<br>oregor:

## Harney

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## 

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SEWING MACHINE



PROGRESS IM IRRIGATIOM


The propreen in agriculture in the arid atates and territories during the decade ending with 1899 is ohown in the report just published
by the Division of Agriculture of the Twelfti Censua. As this pro. grese is attibutable largely to irrigation the statistics reiating there-
to are of general intereat. to are of gevieral interest.
The number of irrigatore in the
United States in 1899, not inelad United States in 1899, not inelad
ing irrigators of rice, ing irrigators of rice, was 105,218, an increase in ten yeare of 99.9 per
cent. The area irrigated was 7 ,
539.545 acres, an increase of 107 539.545 acres, an inerease of 107 G
per cent. Of this area, $5,946,41$ ह́ acres were in crops, and $1,595,133$
acres in pasture and unmatured
crope cropa. The cost of irrigation es ${ }^{5}$ -
tema in operation, exclusive of those on rice piantations, was $\ddagger 67$, 770,942 , white the value of the
gated crope was $\$ 86,860,491$. The total length of all the main
ditehes in the arid and semi-arid diteches in the arid and semi-arid
atates and territories was 14,149 -1 acres in farms in arid staies and
territories wes 71 ; the average val territories was 11 ; the average val
ue of arrigated land per acre. $\$ 4253$; the average value of crops pro-
duced on irrigated land, $\$ 14.81$; the average first cost of water $\mathbf{8 7} 80$; the average annual cost of
maintewance, 80.38 . Of mainteumance, ${ }^{2} 1,38$. Of the 5,711 .
965 acreas in erops, hay and 965 acres in crops. hay and forage
occupied $3,665,654$, or $64 \%$ per occupied 3,665,654, or
cent; cereale, $1,399,709$,

## cent; vegetsbles, 168,432, or 29 per cent; orchard fruits, 251,289

## 881 , or 4 per cent. The value of the hay and forage was $\$ 34,834.966$;

 cerea/s $\$ 14,338,326$; vegetables $\$ 9,627,491$; orchard fruits, $\$ 3,920$409; other crops, including sub tropical fruite, grapes, flowers $=\begin{aligned} & \text { tropi } \\ & \text { prantin } \\ & 246 .\end{aligned}$

In Oregon the number of irrigators incres ted from 4,636 in 1899 or 472 in 1889 and the number of arres irrigated fron 177,944 to 388,310 , or 1182

per cent. The ditehes in operation | per cent. The 1899 had a length of 2,283 miles, |
| :--- |
| in | cost $\$ 1.838,782$, and irrigated 388 ,

 ted area in crope was 290,256 acree vielding products valued at $\$ 3.062$
926 . The area irrigated in pasture 926. The area irrigated in pasture
and imuatured crops was $98,05-4$ acres. Shortly after sending the irriga-
tion bill to the President, Congreas timn bill to the President, Congress the Dirtetor of the Census to cornthe Dirretor of the Census to cons-
pilestatintics relating to irrigation for the crop year of 1902 With will be comparatively simple, mos of tt being done by conespondence To secure this information inquirtors throughout the United States
Ios The co operation of those interested in irrigation is earnestiy solicited
for upon their prompt reapons wil depend very largely the value o these etatistics. This is in part
nupplementary work, the results of which will be utilized in the work soon to be undertaken by the D partment of the Interior under
provisions of the irrigation bill.

Water Measurement. The legal measurement of wat in Califorma is the miner's ineth which is the quantity of water tha
will flow through an opening of on our - inches miove the top of the pening. A miner's inch is equiv- ney.


The velocity of astream of wate flowing trom a ditch, or other
pource 18 equal to that which a heavy falling body would aequire in falling from a heightequal to
the distance between the surface of the water and the middle of the or-
fice. This distance is called the
head of water. The cuant head of water. The quantity of
water issuing from an apertura is
in proportion to the equare coot of the head With an aperture one
inch in height the bead of water
under a four inch pressure would be four and one haif inches. The
square root of a four and one half inch head is 212 inches and of a
six and one half inch bead 255 in . ches. Therefore, an opening that will in the same length of time under a eix inch pressure discbarge
120 inches. The work which water can do is in proportion tothe quan-
tity multiplicd by the equarn of the velocity; That is, the work is in
propertion to the square ront of the proportion to the square root of the
cube of the head. By meane of th he quantity of water fowing rul ditch or stream may be approxi mately determined; seleet Eome
point where the flow of water is bout the same for a distance of, say,
50 feet. Then make a number of 50 feet. Then make a number of
different measurements in the midof the stream or ditch, to a certnin
depth of the water; add these measurements together and divide
by the total unumber of measirements made to ascertain the aver place a piece of heavy wood in th ble rate the time required for it to pass over the distance above men-
tioned. Multiply the area by the main velocity and the product is the number of cubic feet by 1.57 of miner's inches.

## Jorgensen is still to the front

with low prices. Call and see hi
tationary, ete.
Mens Summer Hats reduced
Bhown \& Son
ry Remarkable Cure of Liarrhoea "About six vears ago for the first "me in my life I had a sudden and
evere attack of diarrhoca," eay severe ataek of disrrhoca, eays I got temporary relief, but it eanhe back again and again, and for six
long years I have suffered more misery and agony than I can tell Ii was worse than death. My hus-
band epent hundreds of dollars for physicians' preseriptions a id treat
ment without arail. Finally moved to Busque countv, our present home, and one day I happened
to see an advertieement of Chamberlain's Colic, Cholera and Diar rhoea Remedy with a testimonial of a man had been cured by it the
case was oo similar to my own that
I concluded to try the remedy. I concluded to try the remedy
The result was yonderful. I could hardly realize that I was well again, or believe it could be so after hav-
ing suffered so long, but the bottle of medicine costing that one cente, cured me." For sale by H. M Horton, Burns; Frer sale by H. M

RICH YEAR FOR ALL
 The edges band iron or steel at least one sixteenth of an inch thick, or
br wiring with at least 10 guage by wiring with at least 10 guage
wire. If the metal material is heav. ier than specified, edge reinforce-vemi-circular or rounding boxes must be of not less than 22 guage
iron or stcel, with strengthened Over $\$ 25,000,006^{2}$ will be added his vear from five of her principal dges. industries says the Oregonian. The best workmanlike manner, aad This amount, together with several solely on solder to hold different millions which will be distributed parts of the box together, but all
by other indurtries not included joints must be seamed, curld or in these figures, will undoubtedly tivited. Covers, lids, or cncasicsult in the most prosperous year Legon has ever known.
Lumber will probably lead the hiet this year, and conservative ebdimates place the cut of the year
for the entire state at $1,000,000,000$ feet, valued at approximately $\$ 10$,
000,000 . Next on the list is a wheat crop, which, at present prices, will The largest wool clip ever sold in the state has practically all reach-
ed market, or at least has passed out' of the hands of the growers at
better average prices than have prevailed for a number of years,
The clip was gomething over 2,000 000 pounds, and at the prices gen000,000 to the wealth of the atate
Wiall With hops the yield promises to a certainty of 80,000 bales, which,


The returns are not quite all in
on the ealmon pack, but enough known to warrant un estimate of over $\$ 2,500,000 \mathrm{as}$ the value of the
$\qquad$
Industries and the casiest on which
figures, there are a large number of exceed the remsikrble figures of
the big five. Fruit last year was pretty elose running mate with
hops and salmon, and this rear, if complete returns were obtainable
might mhke a showing fully as avorabie as etther of the great staples
famous. $\qquad$
$\qquad$ pivoted, and exteng sufficiently over the opening to protect the dust.
$\qquad$ rectangular. not less than $18 \times 6 \times 6$ inches if cylindrical, not less then diameter. the capacity to be not
dian less than 488 cubie inches. Exopening at the side or top are more the end.
The department will inspect saru. ple boxes made by different firms, and those found to comply with
the foregoing requirereents will be authoritively stamped "Approved thus markel will come under the
protection of the United ftates, and will be safeguarded against destruction or injury, as the law pro-
vides a fine of not more than a *1,000 and imprisunment not more than three years for all persons
malic:ously tan pering with Unit $d$ tates mail boxes or their contents.
Each box must be ereeted by the roadside, so that the carrier can dismeunting from his vehick. The more than must not be used for
manily; or the occupants of onc house. Residents a
long new routes whe giil to ,comply with these new re rural carriers.
The 14 styles of boxes approved by the department March 28, 1931,
will be accepted as coming withis will be accepted as coming withr
the foregoing regulations when contracted for prior to Oetober 1, but after that time the 14 manufacturers will be required to readjust th
boses to meet new conditions. In all service heretofore estab
lished, and wherein inappropriate unsafe and unsuitable boxes are in
use, the department will exeat that patrons of rural free deliverr will conform as promptly as possi-
ble to the new requirements, if they desire a continuance of rurai
the requirementa if free delivery. The department in tends without undue haste or harsh ness, to secure a uniformity emong
the rural routes, and to have the boxes subatantial and in appear ance and befitting the recognition
of the Government and postal ser-

Slight inju-ies often diesble man and cause several days' loss of
time and whea, blood poison develpe, zometimes result in the loss of hand or limb, Chamberlan's Paia Balm is sn antiseptic linianent When applied to cuts, bruise
and burns it causes them to heal quickly and without maturation pien For sale by H. M. Horto Burns; Fred Haines, Harney.

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