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EC1417 How to Pedigree Chicks

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E.C. 1417 *Poultry*

THE UNIVERSITY OF NEBRASKA
AGRICULTURAL COLLEGE EXTENSION SERVICE

June, 1924

Extension Circular 1417

HOW TO PEDIGREE CHICKS

UNITED STATES
DEPARTMENT OF AGRICULTURE
COOPERATING

HOW TO PEDIGREE CHICKS

S. J. MARSDEN

The growing interest in the breeding of poultry for egg production and standard qualities has brought many inquiries for a simple, accurate, and inexpensive pedigree system. The system in use at the Experiment Station poultry farm has proved satisfactory and is described in this circular.

LEG BANDS FOR MARKING HENS

The first step in establishing a pedigree system is that of giving each bird to be used for a breeder a permanent number. This is done by banding with a sealed band. No duplicates are

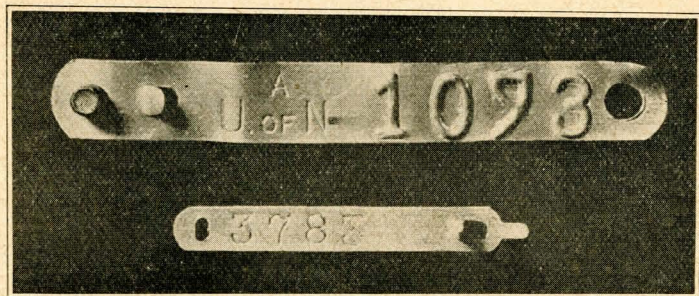


Fig. 1—Bands

ever used; nor bands with more than four figures. The first series of 9999 bands are prefixed with the letter "A". The second series will be "B". Example, "A 2108", "B 28". The male bands are designated by the letter "M" placed after the number, such as "333 M". Since the number of males banded would be comparatively small, the 9999 bands available would suffice for a long period of years.

TRAPNESTS

The trapnest is the means of identifying each egg. There are many types of trapnests on the market, almost any one of which will work, but not all are inexpensive, convenient, simple, and accurate. Trapnest fronts that can be added to any ordinary nests have proved very satisfactory, and allow the owner to construct his nests as he sees fit, allowing plenty of ventilation, which is of especial importance in hot weather.

Each pedigree pen is headed by one male and well yarded so that the matings are under control. When the hen is released from the trapnest, her number and that of the male is



Fig. 2—Trapnests

written with a lead pencil upon the end of the egg, which in sorting goes to the hen's place in the pedigree rack.

At the end of a week the accumulated eggs are put in the incubators, a record going with each tray full showing how many eggs from each hen are included. Until the 17th or 18th day of pedigree eggs are handled the same as the other eggs,

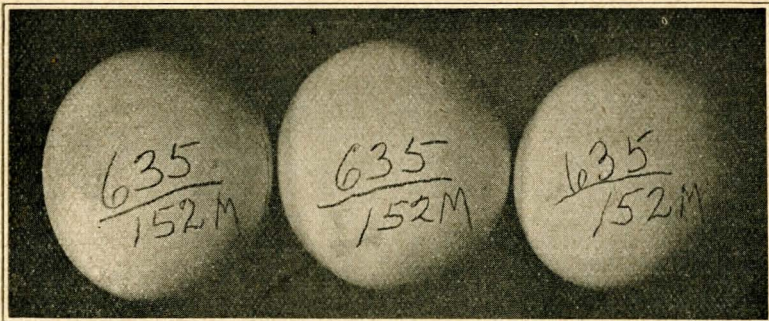


Fig. 3—Marked Eggs

then they are placed in pedigree baskets made of hardware cloth or mosquito-bar sacks, holding up to six eggs, together with a slip of paper giving the numbers of the parents and number of eggs in the box or basket.

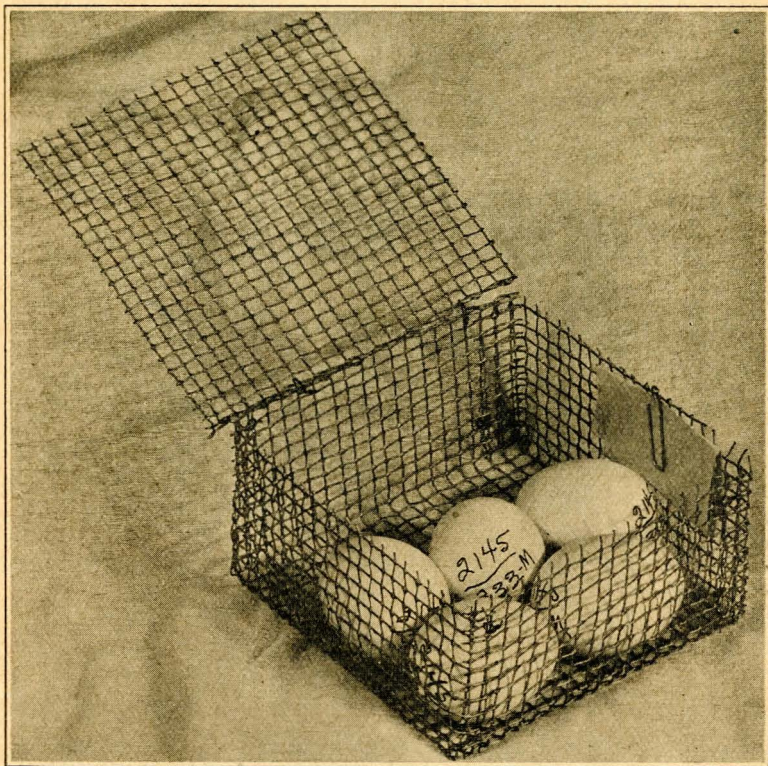


Fig. 4—Eggs in Pedigree Basket

The baskets in use are home-made of $\frac{1}{4}$ " hardware cloth, in size 5"x5"x3". Tops are made separate with wire as hinges and held shut with string or wire. Material for a basket costs about ten cents. The sacks are not as satisfactory, so are used only in emergency. They are made 6"x8".

MARKING THE CHICKS

As soon as the hatch is all over and the chicks "hardened," they should be marked. For those pedigreeing only a small number of chicks, the toe-punch can be used. Sixteen different combinations are possible, as indicated in figure 6.

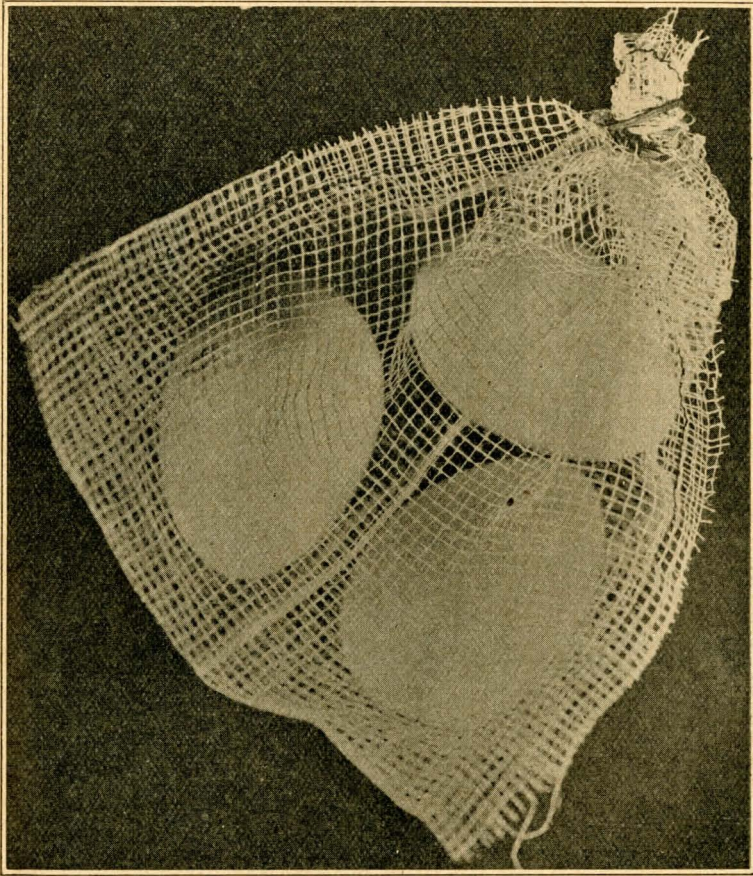
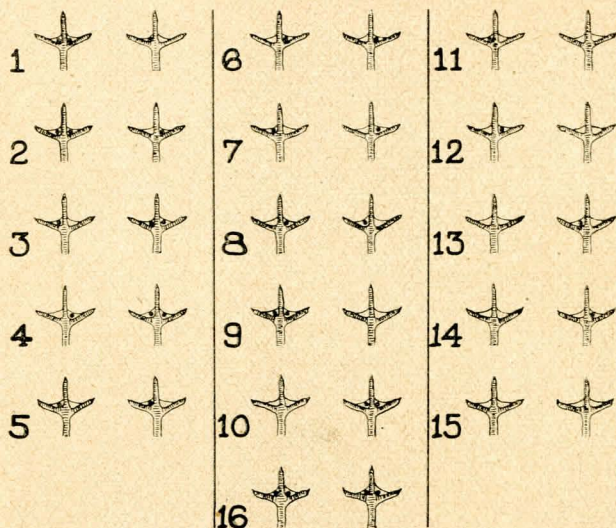


Fig. 5—Pedigree Sack With Eggs

Suitable records should be kept explaining the markings.

When larger numbers of chicks are pedigreed, and complete records are wanted, chicks must be banded. The size known as "No. 2 Pigeon" band is used. They are moulded to circular form on a pen-holder, clinched, and strung on a wire in numerical order. Then as the chick is taken out of the basket, the band is slipped on its right leg over its toes and flattened slightly so it cannot come off, though allowing for considerable growth. Then in the pedigree book, opposite the band number, is recorded the ancestry, date of hatch and any other information desired.

At two weeks of age it is necessary to loosen the bands a



LEFT RIGHT LEFT RIGHT LEFT RIGHT
SIXTEEN WAYS OF TOE-MARKING CHICKS
Fig. 6—Toe-Punch Marks

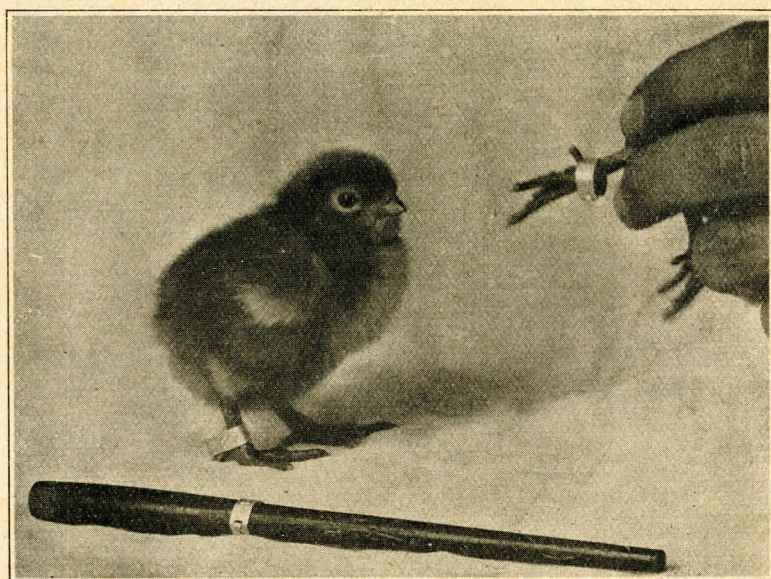


Fig. 7—Band on Leg

little to permit of unobstructed growth. Then at four or five weeks of age the bands are transferred to the right wing. A hole is punched with a sharp penknife just back of the strong tendon at the front edge of the wing and midway between the first and second joints. The band is then removed from the leg, inserted in the hole and clinched again where it remains permanently as the key to the chick's ancestry and any other information found in the pedigree book.

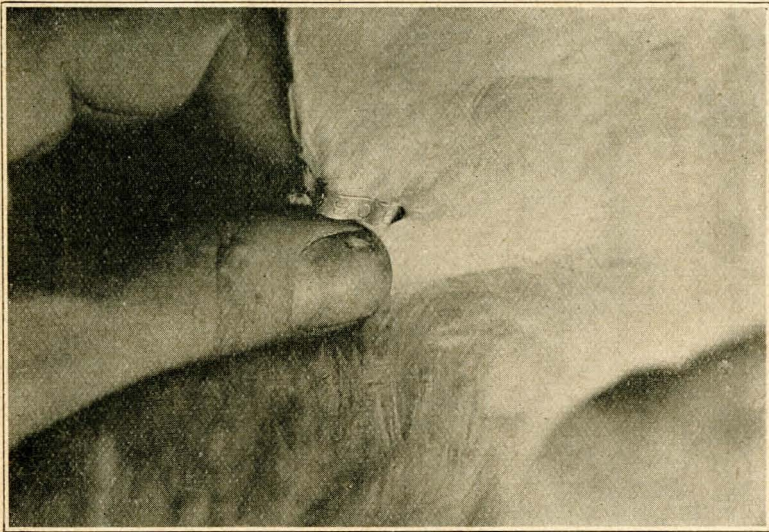


Fig. 8—Band in Wing

RECORDS

A permanent record book is kept safe from fire or theft, while a duplicate copy is used about the plant. This book contains, opposite the number of the wing band, the number of the sire, the number of the dam, variety, and the date of hatch. Additional information such as weight at hatch, and weight at thirty-five days or later is sometimes added for experimental purposes. The date of hatch is quite important since it enables one to ascertain the rate of growth and maturity. This is an important consideration in the selection of breeders and high producers since it is quite well agreed that medium early maturity combined with good size is a common characteristic of the good producer.

As a final step to complete the pedigreeing process, the combination pedigree, breeding record, and egg record card is used for each trapnested hen and breeding male.

REMARKS	Chick Band	Dam	Sire	Date Hatched	Variety	35 d. wt.	Sex	REMARKS
	9501	3094	286	May 3-1923	Bar. Rock	249		
	9502	-	114	" "	"	242		
	9503	4525	407	" "	Buff. Wy.	212		
	9504	4525	407	" "	"	186		
	9505	4325	407	" "	"	278		
	9506	2964	278	" "	Ork. Wy.	266		
	9507	2964	278	" "	"	294	♀	Died Sept. 15, 1923
	9508	2964	278	" "	"	365		
	9509	2964	278	" "	"	230		
	9510	2964	278	" "	"	230		
	9511	2982	278	" "	"	255		
	9512	2982	278	" "	"	225		
	9513	3062	286	" "	Bar. Rock	135	♀	Died Sept. 15, 1923
	9514	3062	286	" "	"	209		
	9515	3062	286	" "	"	185		
	9516	3076	286	" "	"	200		
	9517	2987	307	" "	Ork. Wy.	72		
	9518	2987	307	" "	"	113		
	9519	2126	39	" "	St. Ch. Leg.	99	♂	Died June, 1923
	9520	2184	355	" "	"	215		
	9521	6219	373	" "	"	132		
	9522	1715	286	" "	Bar. Rock	138		
	9523	2189	355	" "	St. Ch. Leg.	190		
	9524	2189	355	" "	"	83		

Fig. 9—Pedigree Record

100 M

Sire

3496
Sire

2064 (235)
Dam, Egg Records

72 M
Sire

A613 (235, 184)
Dam, Egg Records

195 (139)
Dam, Egg Records

433
Sire

2186 (202)
Dam

1924
Sire

7 (Av. 121)
Dam

1714 (241)
Sire

R.P.
Dam

R.P.
Dam

RES. A.K.S.

Dec. 1920, wt. = 375 lbs.

Jan. 1921, " = 3.85 "

Feb. 1921, " = 3.60 "

Dec. 1921, " = 4.00 "

Jan. 1922, " = 4.25 "

Feb. 1922, " = 4.50 "

May, 1923, " = 4.00 "

Apr. 1921 - 57 gr. egg.

" 1922 - 62 " "

First 100 do. prod. = 60 eggs

A2190

Permanent Band

LC 104 Lophorn

Variety

3554

Wing Band

Apr. 24, 1920

Date Hatched

Nov. 14, 1920

First Egg

204 days

Age at First Egg

Weight at First Egg

PRODUCTION RECORD

Year	Age	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Total
20-21				13	19	19	15	24	24	23	13	23	200
21-22	20	7					11	21	26	27	23	26	195
22-23	19	17	19	6			1	20	25	23	25	21	
23-24	15												

BREEDING RECORD

Year	Male No.	No. Eggs Incubated	No. Eggs Fertile	No. Dead In Shell	No. Healthy Chicks Hatched	Male	Female
1922	383 M	38	37	3	29		76% Hatch
1923	354 M				16		

Fig. 10—Record Card

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PEDIGREE RECORD

REMARKS	Chick Band	Dam	Sire	Date Hatched	Variety	35 d. wt.	Sex	REMARKS
	9501	3094	286	May 7, 1923	Ban. Rock	249		
	9502	-	114	" "	SC. Red	242		
	9503	4525	407	" "	Ruff. Wy.	212		
	9504	4525	407	" "	" "	186		
	9505	4525	407	" "	" "	278		
	9506	2964	278	" "	Orh. Wy.	266		
	9507	2964	278	" "	" "	294	♀	Died Sept. 15, 1923
	9508	2964	278	" "	" "	365		
	9509	2964	278	" "	" "	230		
	9510	2964	278	" "	" "	230		
	9511	2982	278	" "	" "	255		
	9512	2982	278	" "	" "	295		
	9513	3062	286	" "	Ban. Rock	135	♀	Died Sept. 15, 1923
	9514	3062	286	" "	" "	209		
	9515	3062	286	" "	" "	185		
	9516	3076	286	" "	" "	200		
	9517	2987	307	" "	Orh. Wy.	72		
	9518	2987	307	" "	" "	113		
	9519	2126	39	" "	Sc. Wy.	99	♂	Died June, 1923.
	9520	2189	355	" "	" "	215		
	9521	6219	373	" "	" "	132		
	9522	1715	286	" "	Ban. Rock	138		
	9523	2189	355	" "	Sc. Wy.	190		
	9524	2189	355	" "	" "	83		

Fig. 9—Pedigree Record

100 M Sire	3496 Sire	1433 Sire	2186 (202) Dam	1024 Sire	Dam 7 (An. 121) Dam	REMARKS: Dec. 1920, wt = 375 lb. Jan. 1921, " = 385 " Feb. 1921, " = 360 " Dec. 1921, " = 4.00 " Jan. 1922, " = 4.25 " Feb. 1922, " = 4.50 " May, 1923, " = 4.00 " Apr. 1921 - 57 gr. egg. " 1922 - 62 " "	A 2190 Permanent Band SC. Wy. Lophorn Variety 3554 Wing Band Dec. 21, 1920 Date Hatched First Egg 204 days Age at First Egg Weight at First Egg
A 613 (235, 184) Dam, Egg Records	72 M Sire	1714 (241) Sire	2186 (202) Dam	1024 Sire	Dam 7 (An. 121) Dam	REMARKS: Dec. 1920, wt = 375 lb. Jan. 1921, " = 385 " Feb. 1921, " = 360 " Dec. 1921, " = 4.00 " Jan. 1922, " = 4.25 " Feb. 1922, " = 4.50 " May, 1923, " = 4.00 " Apr. 1921 - 57 gr. egg. " 1922 - 62 " "	A 2190 Permanent Band SC. Wy. Lophorn Variety 3554 Wing Band Dec. 21, 1920 Date Hatched First Egg 204 days Age at First Egg Weight at First Egg

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Total
20-21				13	19	19	15	24	24	23	13	23	200
21-22	20	7					11	21	26	27	23	26	195
22-23	19	17	19	6			1	20	25	23	25	21	
23-24	15												

Year	Male No.	No. Eggs Incubated	No. Eggs Fertile	No. Dead In Shell	No. Healthy Chicks Hatched	Male	Female
1922	353 M	38	37	3	29		
1923	353 M				16		

Fig. 10—Record Card

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