

INTENSIVE

# LINE-BREEDING

*By*

M. H. "Dad" PAGET

# "What Is Line-Breeding and Why?"

## *Introduction*

In introducing this article on 'intensive line-breeding to the fancy at large, I am not trying to delve into the unknown regions of any Fancy Varieties or utility by-products, or into the High-Flying Tipplers, Tumblers or Acrobats of the air, but am confining my remarks to the racing pigeon families as I know them, and which are the only families of pigeons I claim to know anything about.

Nor am I expecting to compare racing pigeons to vegetables, fruits, or animals of all kinds including rats and mice, all of which are God's creatures, but none of which may be compared with the family of racing pigeons, so I shall stick strictly to racing pigeons and for what they are intended. To do so I may use illustrations pertaining to physical characteristics, mental faculty as well as moral, all of which are parts of the make-up of the racing pigeon.

The breeding and propagation of pigeons to improve them according to the individual ideas of man dates back to many years B. C. But the breeding and propagation of the racing pigeon dates back only a century or thereabouts, and there are men living today who remember the time when the early subjects connected with the present day Homers could not, or would not, or did not fly 100 miles successfully in a week; in fact if a man owned a pigeon that would fly 50 miles and win a race, fanciers of homing pigeons for miles around would pay a visit to that loft to find out for themselves who this Tom Brown or Bill Smith actually was, and where he got his pigeons.

I do not try to claim that I knew personally the men who introduced the Homer to the now extensive racing pigeon fraternity all over the world, but if we are to believe what we have read about the introduction of the Homer, then I am somewhat familiar with these early writings of men who lived a century ago, also men with whom I was personally acquainted 50 years ago in England, Belgium and France, which is where I procured my pigeon education upwards of 50 years ago, when a 500-miler was almost unknown, and those that were known were few and far between.

The present day fancier need not try to go back any farther than to the great fancier M. Ulens and his servant Beernaerts, for it is to those Belgian fanciers we owe much as regards the racing pigeon of the twentieth century. It is to these two men that the old masters had to go for pigeons they wanted and needed to found their colony. It is from these two men that Messrs. Bonjeau, Dedoyard, Delderenne, Deley, Devos, De Vrembe, Guelissen, Hannot, Captain Mitchell, Pittevil, Salsman, Schewyck, Vandenborre, Van Endert, Vernimmen, Vekemans, Van Schingen, Wuydts and others bought or otherwise procured subjects of remarkable ability as voyagers.

The great master Alexandre Hansenne procured his pigeons from Messrs. Bonjeau, Dedoyard and Guelissen in or about the year 1850. Vekemans also sold birds to Hansenne, Wegge, Ruhl, Sofrel and many others. De Vrembe, Vekemans,

and Schewyck sold birds to Wegge also in 1850. Wegge, Hansenne and Soffel sold birds to Pirlot, Ruhl, Gurnay and others. Devoes, Delderenne and Vernimmen sold birds to Vanderlinden, Cassairs, Grooters and Gus Offermans, whilst the latter may be credited with furnishing the blood that made C. A. Mahr famous with his "TRENTON" and "BRIGHT EYE" stock. Soffel sold to Verhaegen.

M. Wuydts in 1869 sold birds to Bonami, De Ridder, Rimbeau, Gus Offermans, Georges Gits, Hasaer, Pittevil and many others. The lovely Stassarts, Sions, Bastins and so on go back to the Ulens through the Wegges, Hansennes, Janssens, Soffels and so on.

Part of Dr. Arthur Bricoux' colony goes back to the Wegges, Bastins and so on. The Havenith strain goes back to the Ulens through the Pittevils and others.

Salsman sold birds to Vekemans, Vekemans to Soffel, Soffel to Gits, Gits to J. W. Logan, Logan to many others. Van Schingen sold birds to Delmotte, Cremer and others. Pittevil also to Toulet, Swiggers and G. Gits. Swiggers sold to F. Gigot, F. Gigot to M. Van De Puttie, Delmotte to Wielmans and Sluys, Wielmans to Seret and others. Grooters sold to a dozen of the topnotch flyers in their day, which were Vanderlinden, Pirlot, Thirionet, Gits, N. Barker, Claes, Bryant, Hasaer, Swiggers, Toulet, Carpentier, Delhay and scores of other fanciers later on. And so this great family of pigeons has gone on and on decade after decade, with still many pigeons of today bearing the name of many of the above old time fanciers who built up a good strain.



## LINE-BREEDING

It is a singular thing with some breeders of racing pigeons to practice line-breeding for two or three seasons, then turn about and try crossing, or I might say out-crossing, expecting to get top-notch results almost overnight, which can't be accomplished in any such short time, far from it. Others adhere (strictly) to the line-breeding method year after year unto some definite end, either Successful or inauspicious.

One of the other of these results will follow their experiments, depending upon the knowledge and the wisdom of the breeder, and if he is void of either, then his chances of success hang in the balance, and he has in all probability wasted a year or two dabbling with something he knows little or nothing about.

It is remarkable that so many so-called fanciers of the racing pigeon try line-breeding without the least knowledge of what it is all about, nor of what it may or may not lead to eventually; in fact fanciers have written time and time again asking me what they should or should not do, never for a minute thinking about the results they would or might attain with birds they possess or may purchase in future.

Most of them want to know what type of pigeon to use for line-breeding in order to produce show-winners and potential racers all rolled into one bird. Other fanciers, good fanciers at that, want to produce some certain color, and think that the only way to produce that certain color is to line-breed or in-breed certain pigeons which show that certain color. Poor deluded souls!

Any experienced racing pigeon fancier knows, that he is likely to produce most any colored bird from any mating, regardless of the color of the birds being used, for it is a fact that all racing pigeons regardless of their own color have perhaps been produced from colors altogether different to what they are themselves; that is what the racing pigeon has behind it, regardless of strain or family.

Some men argue that it is impossible by attention to any physical, outward characteristics, to judge of the possibilities or merits of any racing pigeon. Others, again, maintain definite theoretical notions as to what the precise shape and structure such a bird should be, possibly founding their ideal on, or thinking mostly of the particular type of pigeons they are breeding from, whether that particular type is good, bad or indifferent.

Some time ago a certain fancier wrote me concerning an IN-BRED Trenton, and sent along with his letter a copy of the pedigree of the bird in question, in which it shows no trace whatsoever of any in-breeding on either side, but does show a touch of line-breeding, inasmuch as the particular bird in question was produced from a so-called Trenton Cock, which in turn was a descendant of old "TRENTON" on one side six generations removed, whilst the dam of this particular pigeon is also a remote descendant of old "TRENTON" blood, but also shows an infusion of Hansenne blood back of her four generations removed, on her dam's side, whilst on her sire's side she was bred from another entirely different descendent of old "TRENTON," he in turn being a son of a grand-son of old "TRENTON," when mated with a grand-daughter of the same pigeon, also in which the Hansenne blood was also shown, still this fellow stated that his pigeon was an IN-BRED TRENTON

This fellow does not know the difference between an IN-BRED and a LINE-BRED pigeon, but wanted to know how he could further in-breed his pigeon to bring back the original blood of old TRENTON.

I can't answer that question, nor do I intend to try.

## INTENSIVE LINE-BREEDING

My method is acknowledged for years as "intensive line-breeding," and I want it to remain so, for that is exactly what it is and nothing else, and when I say that I mean just that, and if anyone cares to try it for a while, he has my permission to go to it as soon as he desires, and I believe, with the right quality of pigeons he cannot fail to reach the top and succeed indefinitely, as this method "sifts" misfits and the "duffers" from the "quality" subjects quite rapidly, and youngsters flown any reasonable distance will either go down early, or stick to the end. There are no "in-betweens;" they are either good, or no good at all.

That all depends upon whether or not the fancier handling the birds knows what to mate together, and whether or not each pigeon in any and all matings has the proper affinity for its mate; if so, then there is nothing to fear; if not, he will find himself at the bottom of the list on race days, and I don't mean maybe, and I do not hesitate in remarking that he better leave line-breeding to those who know how.

Almost every bird in my colony at home, also those in seven different sections of this country and Canada, are more or less line-bred according to this method, and if that is not always possible, then we practice the next best move with matings, which depends upon whether or not we have the specific subjects to mate together in regard to relationship to each other. We also practice line-bred matings with two different strains, meaning a line-bred cock with Logan blood, mated with a line-bred hen possessing Wegge blood, both birds being line-bred birds, but of different blood lines, which we call the LINE-BRED crosses, which are usually good pigeons and which produce good pigeons on the road and in the stock loft.

This practice is not always advisable, however, as it means too many different bloods and too many different dispositions to master and control, and it is best to do a good job with one, or at the most two families of line-bred, blue-blooded birds.

Having the good fortune to be able to draw from my seven other lofts scattered in different sections of the country, it is usually not much of a trick to get THE pigeon I may need to complete a mating, and which I do from time to time if and when I may need such a pigeon. Most of these lofts have been in existence now for many years, some are naturally older than others, and one or two, I believe, are still functioning although their owners are now in the Armed Forces.

It is next to impossible for any breeder to practice line-breeding for two or three years and then quit, and still call it line-breeding. Line-breeding must continue indefinitely if we are to call it intensive line-breeding. Later on in this article I shall submit a chart on intensive line-breeding, which is not in-breeding at all, but is a pure and simple method of intensive line-breeding and nothing else. It is a method I have practiced for decades, years before I copyrighted it in 1907, and I still practice it today, and shall continue to practice it as long as I live.

When we select pigeons for any scientific experiment, we need pigeons of fault-

less quality; birds possessing great stamina, great strength of character, good feather quality, big boned, strong and robust constitution, good conformation and of perfect balance. In fact they must be perfect specimens possessing physical, mental and moral characteristics of the finest to be found. When such pigeons have been found, and are permanently located in their future home, they need good, sound food, plenty of good grit, a constant supply of pure fresh water, coupled with adequate bathing facilities and sanitary conditions, in fact they must have environment of the best possible nature, with plenty of good sunlight whenever possible, without which no fancier can possibly expect results that will be perfect and gratifying. .

The pigeons intended for intensive line-breeding must, in the first place, be well balanced, properly proportioned, and this, beyond question, is the primary essential in a good pigeon, be it intended for show purposes or racing, for this is the first thing, the first outward characteristic which comes to an experienced racing pigeon Judge's notice the first time he handles or even looks at a pigeon. If anything is lacking in regard to "balance," that bird goes back to its exhibition cage, regardless of whatever other good qualities the bird may possess.

We must remember continuously that we are trying to produce many factors connected with our racing pigeons, factors that are most essential to the general makeup of the variety with which we are experimenting from start to finish. Factors that act and work with and for each other, chief of which are racing ability, staying power or endurance, bone structure, feather quality, mental faculty and everything that goes with these individual factors in order to create a perfect whole.

"Balance" in a pigeon means and requires that the various parts of the bird's anatomy shall be in proper proportion with each other. Each part must be as strong and as powerful as all others. For instance, a bird which is too short in keel, or too deep, as compared with the length of leg, or too short or too long in body or out of proportion with other parts of the anatomy, cannot be well balanced.

A bird might possess an abundance of good feathering, and still lack a good body, having a keel too deep, a chest too narrow, with legs too long and so on.

This would not necessarily constitute it a good show specimen, whilst, per contra, any deficiency of feather must of course condemn it for show purposes, and it stands to reason that any pigeon with poor feather cannot race well and give a good account of itself on the road at any distance.

What we must have then, is a pigeon or pigeons that is not something apart from or separate from a good racing subject that has either been tried at racing, or that has produced good racers under all ordinary racing conditions, but a genuine racer that can race well, one that is proportionately excellent in all those characteristics which are deemed to be desirable and necessary in a racing pigeon of quality.

I do not advocate line-breeding to anybody unless the fancier knows what it is all about before he even thinks of trying, and knowledge cannot be purchased like so much merchandise. Knowledge denotes acquaintance with, or a clear perception of facts as they appear, especially in their practical relations to pigeon life and conduct, it implies depth of insight or ripeness of experience.

Information is knowledge communicated, or acquired by reading or observation. Agnostics have no business trying to line breed racing pigeons, or any other pigeons.

A recognition of this fact at the outset and before any purchases are made, would go far to obviate the inevitable disappointment experienced by fanciers who like to indulge in line-breeding or what they like to call in-breeding racing pigeons, whether they can afford it or not.

#### "SPORTS" and "THROW-BACKS"

This does not necessarily mean that every variety is as hard to line-breed as is the racing pigeon, but it does mean that any and all varieties have their particular problems, even though they are not as great, nor as risky as is the racing pigeon. Every variety has its own peculiar points, some of which are harder to attain than others, and must be mastered thoroughly before anyone dare hope to attain success.

Again, this does not necessarily mean that any fancier is on the right road to evolve or perpetuate a strain of high class pigeons regardless of variety, for some individual pigeons unfortunately fail to reproduce any semblance of their own excellence in their direct descendents or in generations further removed, and the explanation of this lies in the fact that such birds are not themselves typical of the line or family from which they descend, but are merely "SPORTS" or possibly chance productions, or even a "THROW-BACK" through many generations to some remote ancestor, and the chances are that such pigeons, however mated, will never throw a youngster as good as itself, or as good as one or more of its progenitors mentioned above.

A "flash in the pan" means nothing, and the harder your job is to produce birds that can and do win races at any distance, the better your chances will be later on to perpetuate their kind, generation after generation.

This "flash in the pan" stuff has happened in all racing circles the world over, and is still happening quite frequently today, and will continue to happen as long as pigeon racing is indulged in, no doubt, and, although it will continue to happen again and again, it behooves us to try and breed carefully, and run no risks of ruining some good family of racers by line-breeding unless we know what is what and why it is so.

Set your mind on an ideal and keep it there until you have attained your goal, or at least until you have accomplished something worth while with one or two matings, then, practice alliances between two families of pigeons in your own loft. Do not go elsewhere, and do not think of buying a pigeon from some other fancier who is doing no better than you are yourself on race days, for it is a ten to one bet that he has nothing any better than you have inside your own loft. On the other hand, if you know of a good fancier who has been successful with his colony, try to get a bird or two from him, mate them scientifically with one of your own if you have any good ones that you feel will produce results with this stranger's pigeons; then watch results.

Do not think for a moment that you will "set the world afire" in one season, for you cannot do that, not in five or six seasons of careful breeding. There is more to it than that, more to it than the mere fact of mating a couple of pigeons together.

Looking at the other side of the picture, or perhaps we should say on the contrary sometimes, a bird of super excellence may be bred from a very moderate line of racers but it is not with such birds as these that one will find or have found a

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Looking at the other side of the picture, or perhaps we should say on the contrary sometimes, a bird of super excellence may be bred from a very moderate line of racers but it is not with such birds as these that one will find or have found a

consistently successful strain of pigeons. It is imperative therefore to purchase only birds of unquestionable antecedents, and by that I mean pigeons whose parents, grand-parents and great-grand-parents are or have been of a suitable fixed type of racers and producers. These are the birds that may be relied upon to reproduce themselves in their offspring with reasonable certainty, and which will give us a strain of racing pigeons second to none. It can be done. It has been done before by many advocates of such line-breeding methods as is outlined in this article, and if other men can do it sensibly, you, too, should be able, provided you get the right kind of material to work with, then to do a good job of working while you are at it, or else leave it severely alone.

Anything that is worth doing at all is worth doing well. So do a good job of it, and, if Lady Luck happens to throw you a particularly desirable specimen from one of your own matings, salt it down and keep it safe, do not think of disposing of it when some other fancier makes you an offer for it, for if it is good enough for him, it is also good enough for you, so keep it and breed from it before you 'risk losing it.

Only too frequently it happens that two pigeons apparently suited physically to each other, each of them excellent racers as proved by their performances over a period of years, fail to produce youngsters of more than average ability and intelligence. -

For such reasons as, these, breeding has been described by prominent fanciers as somewhat of a lottery, a gamble, and so perhaps it sometimes is from the fancier's point of view, but it is a lottery only because we are ignorant of, or are unable to recognize in our birds (hidden away as they often are beneath the surface) those factors, which, when grouped in their proper order and blended in their true proportion, might, and assuredly would, determine success to a lesser or greater degree.

Luck or chance have no part in the scheme of creation, and there is no law in nature more certain than the law of heredity, no doctrine more true, than that "like begets like," although at times deviations will crop up to spoil it.

There is no such thing in the art of breeding as standing still; one must either advance or one will recede. The first means success; the second spells disaster. Therefore, in selecting two pigeons which are intended to be mated together for line-breeding, one should attempt to minimize faults and smooth out peculiarities, so that a happy medium may be expected, even though it may not be attained until later on.

In so far as certain external or physical characteristics of type, shape, general structure, feather quality and so on are concerned, we should aim at the production of birds conforming to a moderate standard, or as previously mentioned, the happy medium. It is also important when we come to consider inner faculties, that we must or should endeavor to accentuate and magnify these to the utmost extent.

For instance, pigeons of moderate health, of medium physique, ordinary or less than ordinary stamina, or of average intelligence, are of no use whatsoever for breeding or racing purposes, much less for line-breeding or the propagation of a colony.

Where such characteristics as these are concerned, constant efforts should be in the direction of concentration, augmentation and conformation, and to this end

endeavour to pile health upon health, power upon strength, and intellect upon intelligence, and you can't pour it on too thick.

Forget the idea of equalization. By this I mean the mating of good birds with inferior ones, fast pigeons to slow ones, long-distance birds with the sprinters at short distances, long-casted birds with cobby ones, big birds with exceptionally small ones and all that kind of tommy-rot we hear so much about among racing fanciers.

If you have but one pair of good birds and can't afford to buy other good ones, let that pair be enough until you can afford more. It may take a longer time to build up a loft of good pigeons, but the quality will more than make up for the quantity, so what is lost in numbers need not cause any worry, as the quality of the few will take care of itself in the long run, and any man's peace of mind should be worth it.

Along the lines of intensive line-breeding, the best selections to make are to mate the best with the best, the second-best with the second-best and so on, and rest contented with one pair, or at most two pairs until a thorough knowledge of the practice is mastered, after which it is better to go slow than to make haste and fail.

Many times I have been approached on the question as to how far and in what particular feature the sire or dam respectively, are most prone to influence the combined progeny from any given mating. My answer to that question is this:

that to procure the requisite body type, breed from hens excelling in this respect, whilst head properties and feather quality may be obtained usually from the cock's side of a mating.

Intelligence may and does come from both parents, often "jumping" over their direct parents and stopping at one or other of the grand-parents. Usually the sons will favor the mother, whilst the daughters will usually lean towards the father in this respect, and it also often happens that a youngster will jump to the third generation back of it, or to some other generation further removed.

This means also, that a young hen will or may resemble her sire's mother, whilst a young cock will resemble his mother's sire, and this has been proved time and time again, not only in my own lofts, but in the lofts of many successful racing men.

What I like to see most of all in my youngsters, is a certain part or portion from each parent, and .as much of each grand-parent as possible. I know then that I have a good mating, and the youngsters usually turn out to be good racers.

As previously mentioned in the beginning of this article, two pigeons of good quality in every respect must be used for this job, and we are now ready to start operations on an intensive line-breeding expedition.

We will now mate the birds together by numbers; #1 will be the original cock, and #2a will be the original hen, not forgetting that each subject is unrelated to begin with, but both may be from the same strain, or from two different strains of quality pigeons, pigeons which have already made a name for themselves on the road. #1 and #2a producers will be used but twice in this line of breeding, simply because we are running one line straight through to the tenth generation merely as an illustration of what is to be done with this particular line, after which the same two original birds will continue to breed on and on as long as they produce good birds.

In fact every bird used in this method, and bred from them will be used twice;

therefore, I wish every reader who may be interested in line-breeding, and who has the proper quality of pigeons to do it with, will just take a little time, and jot down each generation as it is produced, selecting the best from each mating as we go along, so that no poor, weak or mis-shaped subjects are used at all, selecting only the best and most robust subjects in each and every successive generation.

Personally I like to select a Red or Red Chequer to go with the Blue or Blue Chequer in all matings where possible, as this also aids in selecting future subjects advantageously, all of which will be revealed to the operator using this method. This will aid him tremendously in selecting the proper mates for all matings.

On the first mating #1 and #2a will produce several youngsters, from which the best cock will be selected, and which we will call #3. The following year, when set #3 is a yearling, he will be mated with his mother #2a.

This pair will also produce several youngsters, from which the best hen will be selected, and which we will call #4a. The following year, when #4a is a yearling, she will be mated with her grand-sire, the original #1 Cock.

#1 and #4a will now produce youngsters that may be flown successfully as young birds and should do well from any and all distances in reason. We now select the best young hen from this mating of #1 and #4a, and will call her #5a, her grand-sire #3 will be mated with her during her yearling year, and they will produce a cock #6, and so it goes right along the line generation after generation indefinitely.

#6 is now mated with #4a, and they produce a cock #7. #7 is then mated with his grand-mother #5a and they produce a hen #8a. #6 is then mated with his grand-daughter #8a, and they produce a hen #9a. #7 now goes with #9a, his own grand-daughter, and this pair produces a cock #10.

By this method it will be seen that there are several definite operations, each has a meaning of its own, and which must be followed correctly or we will break the charm, and various complications may result in mediocre performances, which might create disgust in the fancier operating. So please follow the method religiously.

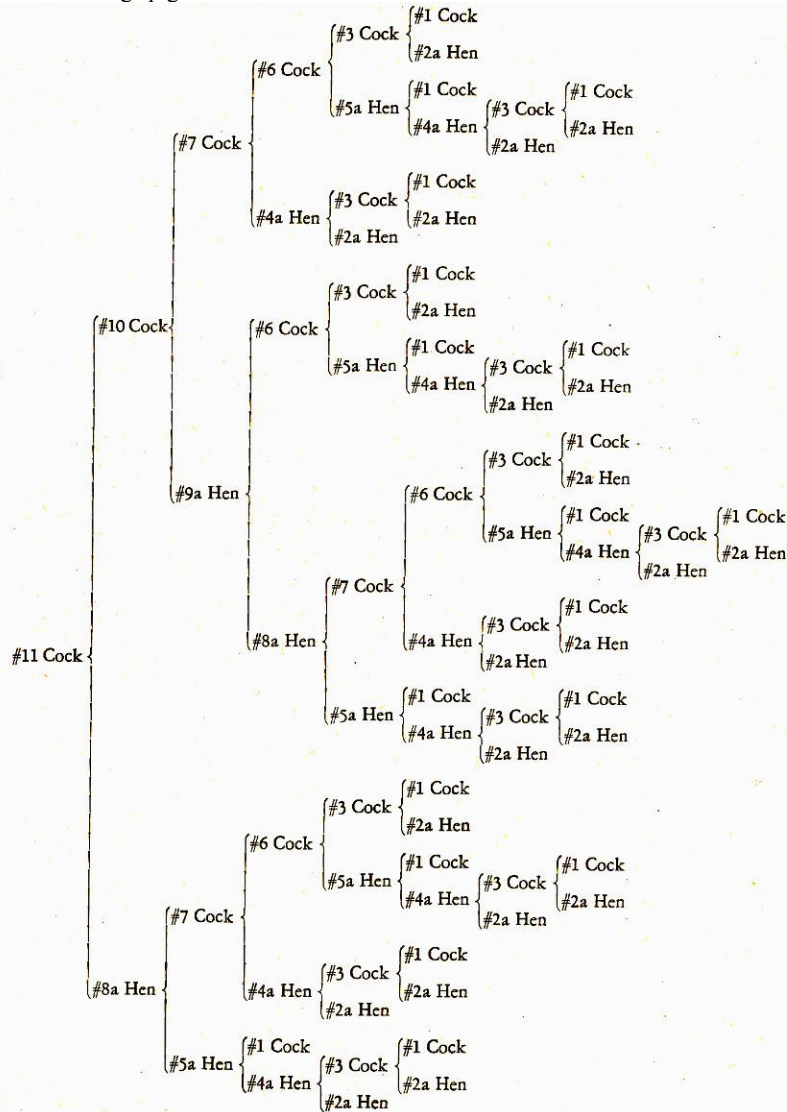
By studying this method carefully, it will be seen that two cocks are produced in two succeeding years, and two hens during the following two succeeding years, but this is not noticeable until the third generation starts with hen #4a, followed by hen #5a, then two cocks #6 and #7, then two hens #8a and #9a, and so on down the line, for a thousand years, and we would be able to do it without serious consequences or any deterioration of a single bird.

It will also be seen that every mating after the second, is made with a half-brother and half-sister, plus each bird's grand-parent regardless of whether it is a cock or a hen, and the half-brother is also a grand-son or a grand-sire of its mate in one instance or the other. In other words the half-brother is also a grand-sire or a grand-son of its mate. The half-sister is also the grand-mother or the granddaughter of its mate in every instance commencing with the third generation with #4a.

A sheet of paper large enough to hold the entire pedigree may be used to determine just how this method works out, making a careful study of all matings, which will reveal this wonderful method of intensive line-breeding to anyone interested in it, and who may be intelligent enough to follow it out year after year.

### A Fully Extended Line-Breeding Chart

By perusing the following chart it will be seen that we have used 40 matings, at the same time we have actually used only 10 pigeons in propagating 10 generations of line-bred racing pigeons. This is a Scientific Intensive Line-Breeding Method.

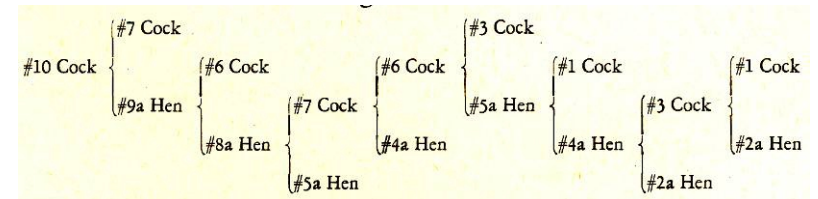


Tracing back this family tree from the #11 Cock, we find the following branches:

#11 Cock goes back to #1, 19 times; back to #2a, 22 times; back to #3, 13 times; back to #4a, 9 times; back to #5a, 6 times; back to #6, 4 times; back to #7, 3 times; back to #8a, 2 times; back to #9a and #10 once.

NOTE: #11 Cock would then be mated with his half-sister and grand-mother #9a. This mating would then produce a hen which we will call #12a. She in turn would be mated with her half-brother and grand-sire #10, and they would produce a hen called #13a. And so it goes indefinitely without fear of degeneration or injury of any kind, provided all subjects used are sound, healthy and robust in constitution.

### Line-Breeding Method and Chart



The above chart is, a simple way of determining just how the different birds are bred and produced, showing eight actual matings in eight years of breeding to line.

The extended method and chart shows exactly *how* many matings were used during the eight years it took to produce the #10 cock. It is of necessity more or less complicated at first glance, but it will be seen also, that all birds are carried through from start to finish along one line of line-breeding; it also shows the number of times each pigeon appears in the pedigree of the last one produced.

In my own lofts, I have a few birds bred as above that go back for almost forty generations without a break, and which are today among some of my choicest subjects as racers as well as remarkable stock birds, breeding youngsters for other fanciers who have already made a name for themselves in the pigeon flying world, besides others **who** are just starting up the ladder to fame, and maybe to fortune, who knows?

In the extended pedigree which follows, it may be seen that we have used forty matings, or to be exact 80 pigeons in propagating 10 generations of intensive line-bred birds; at the same time we have used only 10 individual pigeons to produce the #11 cock. #11 also possesses approximately the same equalization of blood on both sides as does the #3 cock, also as all others following #3. This chart and method may be carried on indefinitely without any injury to any one pigeon used in the method. This method of line-breeding has been practiced by myself for many years, also by many other fanciers all over the pigeon flying world, all of which have reported wonderful results in racing old and young birds, also in the stock loft. However, care must be used in procuring subjects if and when line-breeding is to be adhered to, for every family, every strain of racing pigeons, possess their own peculiarities, all of which must be studied and thoroughly understood before proceeding to experiment. Their various "points" - must, be considered

first of all, as some points are harder to attain than others, consequently, they are



more valuable, and when a fancier decides which points he needs roost, which usually are the hardest, set your eye on those particular points and keep on working to attain them year after year.

This method of line-breeding may be started at any time, even during the late season after all other breeding has ceased for the season, as the purity of the blood comes to the surface of the breeders during the regular moult, and many excellent subjects have been produced by successful racing pigeon fanciers during the so-called "off season," and with careful manipulation, you also, may carry it on indefinitely without injury to your individual birds or your whole colony.

Should Lady Luck throw you a particularly desirable subject, keep it and use it yourself, do not be tempted to dispose of it upon any consideration as it may be THE particular specimen you are looking for. If you are able to produce even one good subject in any one season from any particular mating, you are progressing very well.

Do not become impatient, learn to play a waiting game if you desire to master the "art" of scientific line-breeding and all that it stands for.

Also, you must learn to master one factor at a time, then get that one factor firmly established before you try for another, especially if that one factor is a hard one to master such as EYE QUALITY, FEATHER, BONE STRUCTURE, TYPE' or GENERAL CONFORMATION, all of which play their own particular part in line-breeding pigeons.

Line-breeding is not in-breeding or out-crossing, although there is a semblance of in-breeding attached to it from year to year as generation follows generation, but this "semblance" is not as close as is in-breeding where a full brother is mated to his full sister and which is the only method of IN-BREEDING. Whereas our method calls for the mating of the half-brother with half-sister, which is not direct in-breeding, but is line-breeding pure and simple. Or I might say INTENSIVE LINE-BREEDING.

In-breeding and line-breeding are altogether different in every sense of the term, and in the past there has been considerable confusion along these lines among breeders of animals and birds, and is still very confusing to some breeders today.

This -article was primarily written for the first time in 1907, and has been rewritten several times since, and published in different pigeon journals in the U.S.A.

These different articles have without doubt educated many racing pigeon men in different parts of the world, also a number of breeders of the Fancy Varieties from whom we have received very encouraging letters time after time, explaining results obtained by them in their experiments for a number of years, so that there must be something to it even in the fancy varieties.

If you really are interested in line-breeding your pigeons, set this family of birds down on paper, taking a sheet of plain paper about two feet long and one foot wide, or large enough to place all birds in pedigree form. About 56 lines all told.

Enjoy an evening of indoor sport by tracing each bird back, commencing with the #11 cock, and you will find that every bird used has been used only twice in this interesting method, which carries the blood lines of the two original birds all

mental faculties, as has been proven time after time everywhere!

Of course, it is understood that more than one bird is produced from a mating each year, but only the best and- most typical bird was selected to be used in this method. However, a fancier need not depend upon one bird from each mating, in fact he should select two or three good subjects in both sexes for his experiments, and classify them according to their eventual performance on the road and in the stock loft, thus perfecting a colony of racing pigeons second to none and with greater expediency, as during the following year he will have subjects that may be coupled among themselves, so that in subsequent years he will maintain untold resources to draw from if and when he needs a bird to complete and perfect his new matings. After the "best" birds have been selected for breeding purposes, it is important to see that all others are trained and flown as young birds to a reasonable distance year after year, and a strict record kept and maintained of their individual work and performances race after race and year after year, making notes on their several likes and dislikes in regard to distance, weather conditions, speed and endurance.

It will also be found that there may be a tendency towards greater size in a number of subjects bred under this intensive line-breeding method, especially among the male subjects, whilst the females will also gain in size in many instances, so it is really up to the fancier himself to watch this procedure, so that subjects of too large size will not become prevalent as the years go on.

It is best to keep to the happy medium in size always, not forgetting that a well-feathered bird is always necessary and essential, coupled with strong bones, not too long in leg nor too deep in keel, but possessing a strong back, wide chest, deep and powerful between the eyes, with a good frontal and back skull, with legs set wide apart something akin to the "bull-dog" type in structure.

All things being equal, and with all of the afore-mentioned factors properly balanced, no fancier should have much trouble in perfecting his colony of pigeons.

the way through, and with not a single chance of weakening their physical characteristics or their





A recognition of this fact at the outset and before any purchases are made, would go far to obviate the inevitable disappointment experienced by fanciers who like to indulge in line-breeding or what they like to call in-breeding racing pigeons, whether they can afford it or not.

### "SPORTS" and "THROW-BACKS"

This does not necessarily mean that every variety is as hard to line-breed as is the racing pigeon, but it does mean that any and all varieties have their particular problems, even though they are not as great, nor as risky as is the racing pigeon. Every variety has its own peculiar points, some of which are harder to attain than others, and must be mastered thoroughly before anyone dare hope to attain success.

Again, this does not necessarily mean that any fancier is on the right road to evolve or perpetuate a strain of high class pigeons regardless of variety, for some individual pigeons unfortunately fail to reproduce any semblance of their own excellence in their direct descendents or in generations further removed, and the explanation of this lies in the fact that such birds are not themselves typical of the line or family from which they descend, but are merely "SPORTS" or possibly chance productions, or even a "THROW-BACK" through many generations to some remote ancestor, and the chances are that such pigeons, however mated, will never throw a youngster as good as itself, or as good as one or more of its progenitors mentioned above.

A "flash in the pan" means nothing, and the harder your job is to produce birds that can and do win races at any distance, the better your chances will be later on to perpetuate their kind, generation after generation.

This "flash in the pan" stuff has happened in all racing circles the world over, and is still happening quite frequently today, and will continue to happen as long as pigeon racing is indulged in, no doubt, and, although it will continue to happen again and again, it behooves us to try and breed carefully, and run no risks of ruining some good family of racers by line-breeding unless we know what is what and why it is so.

Set your mind on an ideal and keep it there until you have attained your goal, or at least until you have accomplished something worth while with one or two matings, then, practice alliances between two families of pigeons in your own loft. Do not go elsewhere, and do not think of buying a pigeon from some other fancier who is doing no better than you are yourself on race days, for it is a ten to one bet that he has nothing any better than you have inside your own loft. On the other hand, if you know of a good fancier who has been successful with his colony, try to get a bird or two from him, mate them scientifically with one of your own if you have any good ones that you feel will produce results with this stranger's pigeons; then watch results.

Do not think for a moment that you will "set the world afire" in one season, for you cannot do that, not in five or six seasons of careful breeding. There is more to it than that, more to it than the mere fact of mating a couple of pigeons together.

Looking at the other side of the picture, or perhaps we should say on the contrary sometimes, a bird of super excellence may be bred from a very moderate line of racers but it is not with such birds as these that one will find or have found a

consistently successful strain of pigeons. It is imperative therefore to purchase only birds of unquestionable antecedents, and by that I mean pigeons whose parents, grand-parents and great-grand-parents are or have been of a suitable fixed type of racers and producers. These are the birds that may be relied upon to reproduce themselves in their offspring with reasonable certainty, and which will give us a strain of racing pigeons second to none. It can be done. It has been done before by many advocates of such line-breeding methods as is outlined in this article, and if other men can do it sensibly, you, too, should be able, provided you get the right kind of material to work with, then to do a good job of working while you are at it, or else leave it severely alone.

Anything that is worth doing at all is worth doing well. So do a good job of it, and, if Lady Luck happens to throw you a particularly desirable specimen from one of your own matings, salt it down and keep it safe, do not think of disposing of it when some other fancier makes you an offer for it, for if it is good enough for him, it is also good enough for you, so keep it and breed from it before you 'risk losing it.

Only too frequently it happens that two pigeons apparently suited physically to each other, each of them excellent racers as proved by their performances over a period of years, fail to produce youngsters of more than average ability and intelligence. -

For such reasons as, these, breeding has been described by prominent fanciers as somewhat of a lottery, a gamble, and so perhaps it sometimes is from the fancier's point of view, but it is a lottery only because we are ignorant of, or are unable to recognize in our birds (hidden away as they often are beneath the surface) those factors, which, when grouped in their proper order and blended in their true proportion, might, and assuredly would, determine success to a lesser or greater degree.

Luck or chance have no part in the scheme of creation, and there is no law in nature more certain than the law of heredity, no doctrine more true, than that "like begets like," although at times deviations will crop up to spoil it.

There is no such thing in the art of breeding as standing still; one must either advance or one will recede. The first means success; the second spells disaster. Therefore, in selecting two pigeons which are intended to be mated together for line-breeding, one should attempt to minimize faults and smooth out peculiarities, so that a happy medium may be expected, even though it may not be attained until later on.

In so far as certain external or physical characteristics of type, shape, general structure, feather quality and so on are concerned, we should aim at the production of birds conforming to a moderate standard, or as previously mentioned, the happy medium. It is also important when we come to consider inner faculties, that we must or should endeavor to accentuate and magnify these to the utmost extent.

For instance, pigeons of moderate health, of medium physique, ordinary or less than ordinary stamina, or of average intelligence, are of no use whatsoever for breeding or racing purposes, much less for line-breeding or the propagation of a colony.

Where such characteristics as these are concerned, constant efforts should be in the direction of concentration, augmentation and conformation, and to this end

endeavour to pile health upon health, power upon strength, and intellect upon intelligence, and you can't pour it on too thick.

Forget the idea of equalization. By this I mean the mating of good birds with inferior ones, fast pigeons to slow ones, long-distance birds with the sprinters at short distances, long-casted birds with cobby ones, big birds with exceptionally small ones and all that kind of tommy-rot we hear so much about among racing fanciers.

If you have but one pair of good birds and can't afford to buy other good ones, let that pair be enough until you can afford more. It may take a longer time to build up a loft of good pigeons, but the quality will more than make up for the quantity, so what is lost in numbers need not cause any worry, as the quality of the few will take care of itself in the long run, and any man's peace of mind should be worth it.

Along the lines of intensive line-breeding, the best selections to make are to mate the best with the best, the second-best with the second-best and so on, and rest contented with one pair, or at most two pairs until a thorough knowledge of the practice is mastered, after which it is better to go slow than to make haste and fail.

Many times I have been approached on the question as to how far and in what particular feature the sire or dam respectively, are most prone to influence the combined progeny from any given mating. My answer to that question is this:

that to procure the requisite body type, breed from hens excelling in this respect, whilst head properties and feather quality may be obtained usually from the cock's side of a mating.

Intelligence may and does come from both parents, often "jumping" over their direct parents and stopping at one or other of the grand-parents. Usually the sons will favor the mother, whilst the daughters will usually lean towards the father in this respect, and it also often happens that a youngster will jump to the third generation back of it, or to some other generation further removed.

This means also, that a young hen will or may resemble her sire's mother, whilst a young cock will resemble his mother's sire, and this has been proved time and time again, not only in my own lofts, but in the lofts of many successful racing men.

What I like to see most of all in my youngsters, is a certain part or portion from each parent, and as much of each grand-parent as possible. I know then that I have a good mating, and the youngsters usually turn out to be good racers.

As previously mentioned in the beginning of this article, two pigeons of good quality in every respect must be used for this job, and we are now ready to start operations on an intensive line-breeding expedition.

We will now mate the birds together by numbers; #1 will be the original cock, and #2a will be the original hen, not forgetting that each subject is unrelated to begin with, but both may be from the same strain, or from two different strains of quality pigeons, pigeons which have already made a name for themselves on the road. #1 and #2a producers will be used but twice in this line of breeding, simply because we are running one line straight through to the tenth generation merely as an illustration of what is to be done with this particular line, after which the same two original birds will continue to breed on and on as long as they produce good birds.

In fact every bird used in this method, and bred from them will be used twice;

less quality; birds possessing great stamina, great strength of character, good feather quality, big boned, strong and robust constitution, good conformation and of perfect balance. In fact they must be perfect specimens possessing physical, mental and moral characteristics of the finest to be found. When such pigeons have been found, and are permanently located in their future home, they need good, sound food, plenty of good grit, a constant supply of pure fresh water, coupled with adequate bathing facilities and sanitary conditions, in fact they must have environment of the best possible nature, with plenty of good sunlight whenever possible, without which no fancier can possibly expect results that will be perfect and gratifying.

The pigeons intended for intensive line-breeding must, in the first place, be well balanced, properly proportioned, and this, beyond question, is the primary essential in a good pigeon, be it intended for show purposes or racing, for this is the first thing, the first outward characteristic which comes to an experienced racing pigeon Judge's notice the first time he handles or even looks at a pigeon. If anything is lacking in regard to "balance," that bird goes back to its exhibition cage, regardless of whatever other good qualities the bird may possess.

We must remember continuously that we are trying to produce many factors connected with our racing pigeons, factors that are most essential to the general makeup of the variety with which we are experimenting from start to finish. Factors that act and work with and for each other, chief of which are racing ability, staying power or endurance, bone structure, feather quality, mental faculty and everything that goes with these individual factors in order to create a perfect whole.

"Balance" in a pigeon means and requires that the various parts of the bird's anatomy shall be in proper proportion with each other. Each part must be as strong and as powerful as all others. For instance, a bird which is too short in keel, or too deep, as compared with the length of leg, or too short or too long in body or out of proportion with other parts of the anatomy, cannot be well balanced.

A bird might possess an abundance of good feathering, and still lack a good body, having a keel too deep, a chest too narrow, with legs too long and so on.

This would not necessarily constitute it a good show specimen, whilst, per contra, any deficiency of feather must of course condemn it for show purposes, and it stands to reason that any pigeon with poor feather cannot race well and give a good account of itself on the road at any distance.

What we must have then, is a pigeon or pigeons that is not something apart from or separate from a good racing subject that has either been tried at racing, or that has produced good racers under all ordinary racing conditions, but a genuine racer that can race well, one that is proportionately excellent in all those characteristics which are deemed to be desirable and necessary in a racing pigeon of quality.

I do not advocate line-breeding to anybody unless the fancier knows what it is all about before he even thinks of trying, and knowledge cannot be purchased like so much merchandise. Knowledge denotes acquaintance with, or a clear perception of facts as they appear, especially in their practical relations to pigeon life and conduct, it implies depth of insight or ripeness of experience.

Information is knowledge communicated, or acquired by reading or observation. Agnostics have no business trying to line breed racing pigeons, or any other pigeons.

This fellow does not know the difference between an IN-BRED and a LINE-BRED pigeon, but wanted to know how he could further in-breed his pigeon to bring back the original blood of old TRENTON.

I can't answer that question, nor do I intend to try.

### INTENSIVE LINE-BREEDING

My method is acknowledged for years as "intensive line-breeding," and I want it to remain so, for that is exactly what it is and nothing else, and when I say that I mean just that, and if anyone cares to try it for a while, he has my permission to go to it as soon as he desires, and I believe, with the right quality of pigeons he cannot fail to reach the top and succeed indefinitely, as this method "sifts" misfits and the "duffers" from the "quality" subjects quite rapidly, and youngsters flown any reasonable distance will either go down early, or stick to the end. There are no "in-betweens;" they are either good, or no good at all.

That all depends upon whether or not the fancier handling the birds knows what to mate together, and whether or not each pigeon in any and all matings has the proper affinity for its mate; if so, then there is nothing to fear; if not, he will find himself at the bottom of the list on race days, and I don't mean maybe, and I do not hesitate in remarking that he better leave line-breeding to those who know how.

Almost every bird in my colony at home, also those in seven different sections of this country and Canada, are more or less line-bred according to this method, and if that is not always possible, then we practice the next best move with matings, which depends upon whether or not we have the specific subjects to mate together in regard to relationship to each other. We also practice line-bred matings with two different strains, meaning a line-bred cock with Logan blood, mated with a line-bred hen possessing Wegge blood, both birds being line-bred birds, but of different blood lines, which we call the LINE-BRED crosses, which are usually good pigeons and which produce good pigeons on the road and in the stock loft.

This practice is not always advisable, however, as it means too many different bloods and too many different dispositions to master and control, and it is best to do a good job with one, or at the most two families of line-bred, blue-blooded birds.

Having the good fortune to be able to draw from my seven other lofts scattered in different sections of the country, it is usually not much of a trick to get THE pigeon I may need to complete a mating, and which I do from time to time if and when I may need such a pigeon. Most of these lofts have been in existence now for many years, some are naturally older than others, and one or two, I believe, are still functioning although their owners are now in the Armed Forces.

It is next to impossible for any breeder to practice line-breeding for two or three years and then quit, and still call it line-breeding. Line-breeding must continue indefinitely if we are to call it intensive line-breeding. Later on in this article I shall submit a chart on intensive line-breeding, which is not in-breeding at all, but is a pure and simple method of intensive line-breeding and nothing else. It is a method I have practiced for decades, years before I copyrighted it in 1907, and I still practice it today, and shall continue to practice it as long as I live.

When we select pigeons for any scientific experiment, we need pigeons of fault-

therefore, I wish every reader who may be interested in line-breeding, and who has the proper quality of pigeons to do it with, will just take a little time, and jot down each generation as it is produced, selecting the best from each mating as we go along, so that no poor, weak or mis-shaped subjects are used at all, selecting only the best and most robust subjects in each and every successive generation.

Personally I like to select a Red or Red Chequer to go with the Blue or Blue Chequer in all matings where possible, as this also aids in selecting future subjects advantageously, all of which will be revealed to the operator using this method. This will aid him tremendously in selecting the proper mates for all matings.

On the first mating #1 and #2a will produce several youngsters, from which the best cock will be selected, and which we will call #3. The following year, when set #3 is a yearling, he will be mated with his mother #2a.

This pair will also produce several youngsters, from which the best hen will be selected, and which we will call #4a. The following year, when #4a is a yearling, she will be mated with her grand-sire, the original #1 Cock.

#1 and #4a will now produce youngsters that may be flown successfully as young birds and should do well from any and all distances in reason. We now select the best young hen from this mating of #1 and #4a, and will call her #5a., her grand-sire #3 will be mated with her during her yearling year, and they will produce a cock *It-6*, and so it goes right along the line generation after generation indefinitely.

#6 is now mated with #4a, and they produce a cock #7. #7 is then mated with his grand-mother #5a and they produce a hen #8a. #6 is then mated with his grand-daughter #8a, and they produce a hen #9a. #7 now goes with #9a, his own grand-daughter, and this pair produces a cock #10.

By this method it will be seen that there are several definite operations, each has a meaning of its own, and which must be followed correctly or we will break the charm, and various complications may result in mediocre performances, which might create disgust in the fancier operating. So please follow the method religiously.

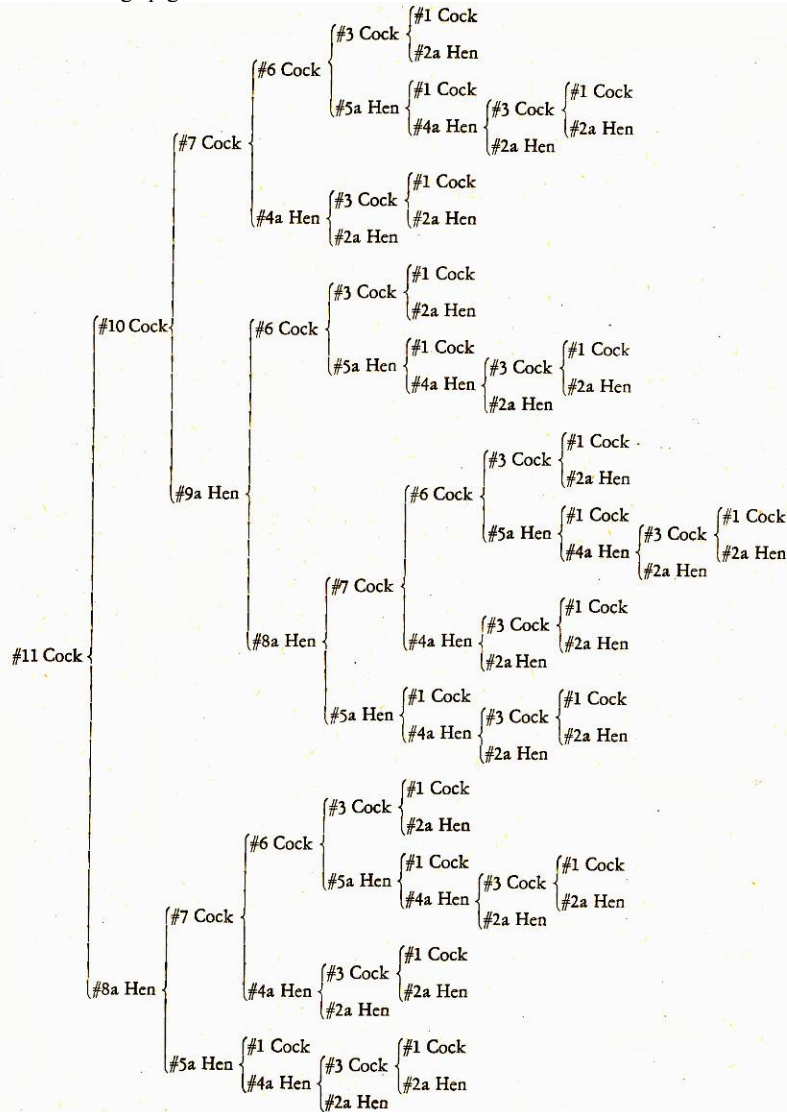
By studying this method carefully, it will be seen that two cocks are produced in two succeeding years, and two hens during the following two succeeding years, but this is not noticeable until the third generation starts with hen #4a, followed by hen #5a, then two cocks #6 and #7, then two hens #8a and #9a, and so on down <sup>21</sup> the line, for a thousand years, and we would be able to do it without serious consequences or any deterioration of a single bird.

It will also be seen that every mating after the second, is made with a half-brother and half-sister, plus each bird's grand-parent regardless of whether it is a cock or a hen, and the half-brother is also a grand-son or a grand-sire of its mate in one instance or the other. In other words the half-brother is also a grand-sire or a grand-son of its mate. The half-sister is also the grand-mother or the granddaughter of its mate in every instance commencing with the third generation with #4a.

A sheet of paper large enough to hold the entire pedigree may be used to determine just how this method works out, making a careful study of all matings, which will reveal this wonderful method of intensive line-breeding to anyone interested in it, and who may be intelligent enough to follow it out year after year.

### A Fully Extended Line-Breeding Chart

By perusing the following chart it will be seen that we have used 40 matings, at the same time we have actually used only 10 pigeons in propagating 10 generations of line-bred racing pigeons. This is a Scientific Intensive Line-Breeding Method.



It is a singular thing with some breeders of racing pigeons to practice line-breeding for two or three seasons, then turn about and try crossing, or I might say out-crossing, expecting to get top-notch results almost overnight, which can't be accomplished in any such short time, far from it. Others adhere (strictly) to the line-breeding method year after year unto some definite end, either Successful or inauspicious.

One of the other of these results will follow their experiments, depending upon the knowledge and the wisdom of the breeder, and if he is void of either, then his chances of success hang in the balance, and he has in all probability wasted a year or two dabbling with something h6 knows little or nothing about.

It is remarkable that so many so-called fanciers of the racing pigeon try line-breeding without the least knowledge of what it is all about, nor of what it may or may not lead to eventually; in fact fanciers have written time and time again asking me what they should or should not do, never for a minute thinking about the results they would or might attain with birds they possess or may purchase in future.

Most of them want to know what type of pigeon to use for line-breeding in order to produce show-winners and potential racers all rolled into one bird. Other fanciers, good fanciers at that, want to produce some certain color, and think that the only way to produce that certain color is to line-breed or in-breed certain pigeons which show that certain color. Poor deluded souls!

Any experienced racing pigeon fancier knows, that he is likely to produce most any colored bird from any mating, regardless of the color of the birds being used, for it is a fact that all racing pigeons regardless of their own color have perhaps been produced from colors altogether different to what they are themselves; that is what the racing pigeon has behind it, regardless of strain or family.

Some men argue that it is impossible by attention to any physical, outward characteristics, to judge of the possibilities or merits of any racing pigeon. Others, again, maintain definite theoretical notions as to what the precise shape and structure such a bird should be, possibly founding their ideal on, or thinking mostly of the particular type of pigeons they are breeding from, whether that particular type is good, bad or indifferent.

Some time ago a certain fancier wrote me concerning an IN-BRED Trenton, and sent along with his letter a copy of the pedigree of the bird in question, in which it shows no trace whatsoever of any in-breeding on either side, but does show a touch of line-breeding, inasmuch as the particular bird in question was produced from a so-called Trenton Cock, which in turn was a descendant of old "TRENTON" on one side six generations removed, whilst the dam of this particular pigeon is also a remote descendant of old "TRENTON" blood, but also shows an infusion of Hansenne blood back of her four generations removed, on her dam's side, whilst on her sire's side she was bred from another entirely different descendent of old "TRENTON," he in turn being a son of a grand-son of old "TRENTON," when mated with a grand-daughter of the same pigeon, also in which the Hansenne blood was also shown, still this fellow stated that his pigeon was an IN-BRED TRENTON

and Schewyck sold birds to Wegge also in 1850. Wegge, Hansenne and Soffel sold



birds to Pirlot, Ruhl, Gurnay and others. Devoes, Delderenne and Vernimmen sold birds to Vanderlinden, Cassairs, Grooters and Gus Offermans, whilst the latter may be credited with furnishing the blood that made C. A. Mahr famous with his "TRENTON" and "BRIGHT EYE" stock. Soffel sold to Verhaegen.

M. Wuydts in 1869 sold birds to Bonami, De Ridder, Rimbeau, Gus Offermans, Georgs Gits, Hasaer, Pittevil and many others. The lovely Stassarts, Sions, Bastins and so on go back to the Ulens through the Wegges, Hansennes, Janssens, Soffels and so on.

Part of Dr. Arthur Bricoux' colony goes back to the Wegges, Bastins and so on. The Havenith strain goes back to the Ulens through the Pittevils and others.

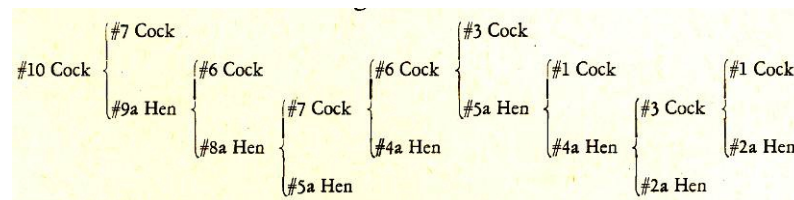
Salsman sold birds to Vekemans, Vekemans to Soffel, Soffel to Gits, Gits to J. W. Logan, Logan to many others. Van Schingen sold birds to Delmotte, Cremer and others. Pittevil also to Toulet, Swiggers and G. Gits. Swiggers sold to F. Gigot, F. Gigot to M. Van De Puttie, Delmotte to Wielmans and Sluys, Wielmans to Seret and others. Grooters sold to a dozen of the topnotch flyers in their day, which were Vanderlinden, Pirlot, Thirionet, Gits, N. Barker, Claes, Bryant, Hasaer, Swiggers, Toulet, Carpentier, Delhay and scores of other fanciers later on. And so this great family of pigeons has gone on and on decade after decade, with still many pigeons of today bearing the name of many of the above old time fanciers who built up a good strain.

Tracing back this family tree from the #11 Cock, we find the following branches:

#11 Cock goes back to #1, 19 times; back to #2a, 22 times; back to #3, 13 times; back to #4a, 9 times; back to #5a, 6 times; back to #6, 4 times; back to; #7, 3 times; back to #8a, 2 times; back to #9a and #10 once.

NOTE: #11 Cock would then be mated with his half-sister and grand-mother #9a. This mating would then produce a hen which we will call #12a. She in turn would be mated with her half-brother and grand-sire #10, and they would produce a hen called #13a. And so it goes indefinitely without fear of degeneration or injury of any kind, provided all subjects used are sound, healthy and robust in constitution.

### Line-Breeding Method and Chart



The above chart is, a simple way of determining just how the different birds are bred and produced, showing eight actual matings in eight years of breeding to line.

The extended method and chart shows exactly *how* many matings were used during the eight years it took to produce the #10 cock. It is of necessity more or less complicated at first glance, but it will be seen also, that all birds are carried through from start to finish along one line of line-breeding; it also shows the number of times each pigeon appears in the pedigree of the last one produced.

In my own lofts, I have a few birds bred as above that go back for almost forty generations without a break, and which are today among some of my choicest subjects as racers as well as remarkable stock birds, breeding youngsters for other fanciers who have already made a name for themselves in the pigeon flying world, besides others **who** are just starting up the ladder to fame, and maybe to fortune, who knows?

In the extended pedigree which follows, it may be seen that we have used forty matings, or to be exact 80 pigeons in propagating 10 generations of intensive line-bred birds; at the same time we have used only 10 individual pigeons to produce the #11 cock. #11 also possesses approximately the same equalization of blood on both sides as does the #3 cock, also as all others following #3. This chart and method may be carried on indefinitely without any injury to any one pigeon used in the method. This method of line-breeding has been practiced by myself for many years, also by many other fanciers all over the pigeon flying world, all of which have reported wonderful results in racing old and young birds, also in the stock loft. However, care must be used in procuring subjects if and when line-breeding is to be adhered to, for every family, every strain of racing pigeons, possess their own peculiarities, all of which must be studied and thoroughly understood before proceeding to experiment. Their various "points" - must, be considered

first of all, as some points are harder to attain than others, consequently, they are

more valuable, and when a fancier decides which points he needs roost, which usually are the hardest, set your eye on those particular points and keep on working to attain them year after year.

This method of line-breeding may be started at any time, even during the late season after all other breeding has ceased for the season, as the purity of the blood comes to the surface of the breeders during the regular moult, and many excellent subjects have been produced by successful racing pigeon fanciers during the so-called "off season," and with careful manipulation, you also, may carry it on indefinitely without injury to your individual birds or your whole colony.

Should Lady Luck throw you a particularly desirable subject, keep it and use it yourself, do not be tempted to dispose of it upon any consideration as it may be THE particular specimen you are looking for. If you are able to produce even one good subject in any one season from any particular mating, you are progressing very well.

Do not become impatient, learn to play a waiting game if you desire to master the "art" of scientific line-breeding and all that it stands for.

Also, you must learn to master one factor at a time, then get that one factor firmly established before you try for another, especially if that one factor is a hard one to master such as EYE QUALITY, FEATHER, BONE STRUCTURE, TYPE' or GENERAL CONFORMATION, all of which play their own particular part in line-breeding pigeons.

Line-breeding is not in-breeding or out-crossing, although there is a semblance of in-breeding attached to it from year to year as generation follows generation, but this "semblance" is not as close as is in-breeding where a full brother is mated to his full sister and which is the only method of IN-BREEDING. Whereas our method calls for the mating of the half-brother with half-sister, which is not direct in-breeding, but is line-breeding pure and simple. Or I might say INTENSIVE LINE-BREEDING.

In-breeding and line-breeding are altogether different in every sense of the term, and in the past there has been considerable confusion along these lines among breeders of animals and birds, and is still very confusing to some breeders today.

This article was primarily written for the first time in 1907, and has been rewritten several times since, and published in different pigeon journals in the U.S.A.

These different articles have without doubt educated many racing pigeon men in different parts of the world, also a number of breeders of the Fancy Varieties from whom we have received very encouraging letters time after time, explaining results obtained by them in their experiments for a number of years, so that there must be something to it even in the fancy varieties.

If you really are interested in line-breeding your pigeons, set this family of birds down on paper, taking a sheet of plain paper about two feet long and one foot wide, or large enough to place all birds in pedigree form. About 56 lines all told.

Enjoy an evening of indoor sport by tracing each bird back, commencing with the #11 cock, and you will find that every bird used has been used only twice in this interesting method, which carries the blood lines of the two original birds all

## "What Is Line-Breeding and Why?"

### *Introduction*

In introducing this article on 'intensive line-breeding to the fancy at large, I am not trying to delve into the unknown regions of any Fancy Varieties or utility by-products, or into the High-Flying Tipplers, Tumblers or Acrobats of the air, but am confining my remarks to the racing pigeon families as I know them, and which are the only families of pigeons I claim to know anything about.

Nor am I expecting to compare racing pigeons to vegetables, fruits, or animals of all kinds including rats and mice, all of which are God's creatures, but none of which may be compared with the family of racing pigeons, so I shall stick strictly to racing pigeons and for what they are intended. To do so I may use illustrations pertaining to physical characteristics, mental faculty as well as moral, all of which are parts of the make-up of the racing pigeon.

The breeding and propagation of pigeons to improve them according to the individual ideas of man dates back to many years B. C. But the breeding and propagation of the racing pigeon dates back only a century or thereabouts, and there are men living today who remember the time when the early subjects connected with the present day Homers could not, or would not, or did not fly 100 miles successfully in a week; in fact if a man owned a pigeon that would fly 50 miles and win a race, fanciers of homing pigeons for miles around would pay a visit to that loft to find out for themselves who this Tom Brown or Bill Smith actually was, and where he got his pigeons.

I do not try to claim that I knew personally the men who introduced the Homer to the now extensive racing pigeon fraternity all over the world, but if we are to believe what we have read about the introduction of the Homer, then I am somewhat familiar with these early writings of men who lived a century ago, also men with whom I was personally acquainted 50 years ago in England, Belgium and France, which is where I procured my pigeon education upwards of 50 years ago, when a 500-miler was almost unknown, and those that were known were few and far between.

The present day fancier need not try to go back any farther than to the great fancier M. Ulens and his servant Beernaerts, for it is to those Belgian fanciers we owe much as regards the racing pigeon of the twentieth century. It is to these two men that the old masters had to go for pigeons they wanted and needed to found their colony. It is from these two men that Messrs. Bonjeau, Dedoyard, Delderenne, Deley, Devos, De Vrembe, Guelissen, Hannot, Captain Mitchell, Pittevil, Salsman, Schewyck, Vandenborre, Van Endert, Vernimmen, Vekemans, Van Schingen, Wuydts and others bought or otherwise procured subjects of remarkable ability as voyagers.

The great master Alexandre Hansenne procured his pigeons from Messrs. Bonjeau, Dedoyard and Guelissen in or about the year 1850. Vekemans also sold birds to Hansenne, Wegge, Ruhl, Sofrel and many others. De Vrembe, Vekemans,

the way through, and with not a single chance of weakening their physical characteristics or their mental faculties, as has been proven time after time everywhere!

Of course, it is understood that more than one bird is produced from a mating each year, but only the best and- most typical bird was selected to be used in this method. However, a fancier need not depend upon one bird from each mating, in fact he should select two or three good subjects in both sexes for his experiments, and classify them according to their eventual performance on the road and in the stock loft, thus perfecting a colony of racing pigeons second to none and with greater expediency, as during the following year he will have subjects that may be coupled among themselves, so that in subsequent years he will maintain untold resources to draw from if and when he needs a bird to complete and perfect his new matings. After the "best" birds have been selected for breeding purposes, it is important to see that all others are trained and flown as young birds to a reasonable distance year after year, and a strict record kept and maintained of their individual work and performances race after race and year after year, making notes on their several likes and dislikes in regard to distance, weather conditions, speed and endurance.

It will also be found that there may be a tendency towards greater size in a number of subjects bred under this intensive line-breeding method, especially among the male subjects, whilst the females will also gain in size in many instances, so it is really up to the fancier himself to watch this procedure, so that subjects of too large size will not become prevalent as the years go on.

It is best to keep to the happy medium in size always, not forgetting that a well-feathered bird is always necessary and essential, coupled with strong bones, not too long in leg nor too deep in keel, but possessing a strong back, wide chest, deep and powerful between the eyes, with a good frontal and back skull, with legs set wide apart something akin to the "bull-dog" type in structure.

All things being equal, and with all of the afore-mentioned factors properly balanced, no fancier should have much trouble in perfecting his colony of pigeons.

INTENSIVE

# LINE-BREEDING

By

M. H. "Dad" PAGET