

NEW YORK, SUNDAY, OCTOBER 30, 1910.—Copyright, 1910, by the Sun Printing and Publishing Association.

CHEAP WAY OF ROAD MAKING

THE PENNSYLVANIA IS BOOSTING THE KING DRAG.

Any Farmer Can Make It From a Twelve Inch Log and With It the Worst Road May Be Made Good—The Long Made Crust of the Old Road Must Be Kept.

The Pennsylvania Railroad has issued a pamphlet entitled "Good Roads at Low Cost" by D. Ward King, the inventor of the so-called "King drag." The pamphlet expounds the benefits of the King drag as the most feasible of all inventions for making good roads without any material expense.

The Pennsylvania road has a definite purpose in issuing this pamphlet; it hopes that the farmers along its lines will improve their roads, that districts now impassible will be opened up. The railroad will gain by this as well as the district.

The formula for making good roads without money," says Mr. King, "is based on several fundamental truths which have been more or less ignored by the road builders in the past. In the first place a travelled road that has been established for a year or more possesses a tough hard crust which is valuable. Many roadmen cover this impervious crust with a thick blanket of soft earth, the first thing they do, while others tear it all to pieces and try unsuccessfully to rearrange it.

Now this crust or shell should neither be broken nor covered; it should first be scuffed with the drag and all the wrinkles and ruts smoothed out of it. Then it

should be thickened gradually. No matter how flat or rough and ratty this crust may be, it nevertheless is the best available surface for travel and a serious blunder is committed when it is destroyed or covered.

"Again I believe a blunder is made whenever loose material of any sort is placed on the road in sufficient quantities to drive the travel from the middle of the highway. Still again not a few men seem to confuse shape with surface drainage. But a loose, porous earth surface, even if it is a sloping surface, will not shed water, it will absorb it.

As to the building of the drag itself Mr. King advises a light one. The length should be governed by the size of the team; a seven foot drag for a span of 1,200 pound horses and one eight feet long for a team weighing 1,000 pounds apiece. Build it from a cedar post or the end of a telephone pole measuring ten or twelve inches in diameter, or from any light timber log. Mr. King then advises:

Split the post or log and select the heavier and sounder slab for the front of the drag. Find a point about four inches from the end of this slab, the end that is to travel in the middle of the road, and bore a two inch auger hole at right angles to the face of the slab and in its center. Then twenty-two inches from the other end of the slab bore another two inch hole in the same manner. Now, half way between these two holes bore a third, getting the three in line with each other and in the center of the slab. The other slab may now be brought up behind the first. Allow six inches between the ditch end of the rear slab and the hole in the ditch end of the front slab, mark and bore the three holes. Thus when they are pinned together the ditch end of the front slab will project some sixteen inches further toward the ditch than the rear slab.

Now prepare the stakes to join the slabs.

I prefer stakes cut from an osage hedge about two and one-half inches through. If hedge is not convenient, rip some pieces out of a two inch oak plank. Full two inches square is sufficient. Shave the ends of the stakes and slip the slabs on until the slabs are within thirty inches of each other, then mark each stake with a lead pencil to show the place where the slab fits. You are now ready to wedge the stakes into the front slab.

Split the stakes and drive the wedges at right angles to the grain of the slab. Drive the rear slab back on the stakes two or three inches from the pencil marks and arrange the brace. Put the front end of the brace down within an inch of the ground and well out to the end of the front slab. Note it in; drive the rear slab back to the marks, catching the brace, and then wedge the stakes securely. If this is well done the brace will never escape. At the front side saw the ends of the stakes off flush with the slab; at the rear allow the projecting ends to remain. Their presence at the rear will serve two purposes. They will answer the question of how the slabs are fastened together. And they come in very handy at times when you wish to lift the drag.

Make a platform of inch boards to drop between the slabs on which the driver may stand. Nail the boards to the slabs, being mindful to arrange the cleats so that they will not interfere with the cross stakes of the drag. Cut the cleats about an inch shorter than the pieces they are to fit and nail the boards half an inch from the ends of the cleats. Use at least three boards and space them an inch apart so that the earth, which at times is likely to pile up against the front slab and fall back on the platform, can readily slip through. Otherwise there will come occasions when you will be obliged to lift the platform, dirt and all, to dump it.

Next bore an inch and a half hole close to the ditch end of the front slab and in the center of it. Cut this hole within an

inch and you are ready for the double tree and team. Do not put the clevis through a link of the trace chain or the link will break. If you have no snatch link put the clevis around the chain and wire it there. Fasten the clevis at a point on the chain about two feet eight inches from the one and a half inch hole. Stand on the ditch end of the drag and drive off. By changing the position of the clevis on the chain and your own position on the drag you will be able to meet the most varying conditions. Remember that much better work can be done with a much lighter drag if the drag moves at a sharp angle.

At the start a plain wooden edge to the drag is sufficient, but after several months work as the road grows level and hard you will find it wise to put three or four feet of iron on the ditch end of the front slab. There may come times when you will wish for sharp steel. But by running a corn cultivator or a disc over the sides of the road ahead of the drag you will likely find a piece of wagon tire sufficient. I am myself partial to the sharpened steel, but it makes trouble at bridges and culverts and calls for more careful driving. Whether iron or steel is used it should not be allowed to project more than one-fourth inch below the wood.

No matter what the condition of the earth it is probable that you can improve your road by dragging it the moment the drag is finished. At any rate you can learn how to use it without doing any harm. Ordinarily be sure it is best to use the drag when the soil is moist but not sticky. Don't be in a hurry to build a high grade; obtain a smooth hard foundation and then build on it gradually.

I see the pokiest team of horses you own and let them take their time. If they're just moving they're going fast enough. When you get experience at dragging you can use an excitable team. And incidentally don't wait for your neighbor to build a drag and drive it past your place for you, build one yourself.

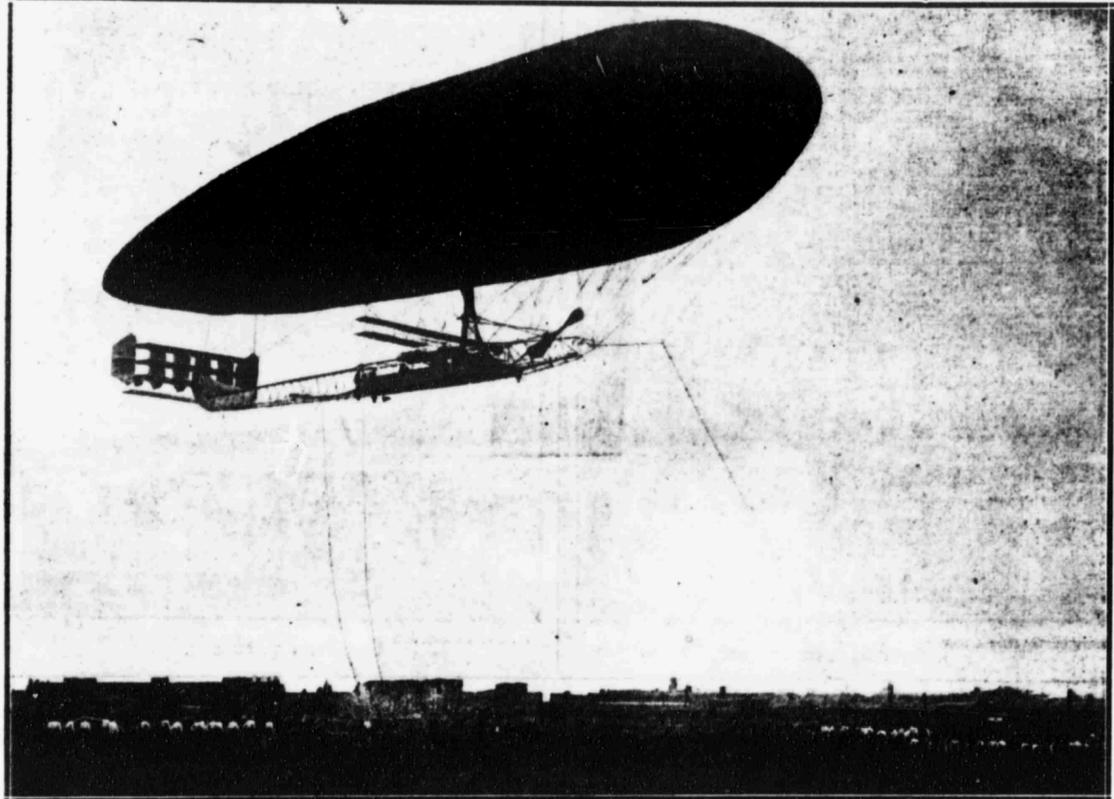


Photo by Edwin Levick, N. Y. THE CLEMENT-BAYARD AIRSHIP THAT SAILED FROM LA MOTTE BREUIL, NEAR PARIS, TO WORWOOD SCRUBBS, A LONDON SUBURB, ON OCTOBER 16.



Photo by Edwin Levick, N. Y. M. CLEMENT, THE DESIGNER OF THE PARIS TO LONDON AIRSHIP.

inch of the end of the slab if the wood is sound and tough. Secure a trace again, regulation length, and ten feet of No. 3 smooth wire. Pass the wire around the stake that is at the middle of the road end of the drag. Pass the wire around this stake twice and twice through the round ring found at the end of the trace chain; then slip a twist snatch link onto the end of the chain, pass the free end of the chain through the inch and a half hole, drop an old link into a link behind the slab and hold the chain when the strain of draught

An Ancient Parlor. From the Queen. A commemorative plate has just been placed on the Sphinx facing the Chatelet Theatre in Paris bearing these interesting words: "Here stood the bourgeois parlor (parlor or 'season room') where the municipality of Paris met from the middle of the thirteenth century until 1357." At this period it was removed to the Place de Grève and soon became known as the town hall or Hotel de Ville.

ALPHONZO SMITH PIANO HOUSE. Selling Agents in Brooklyn for the Following PIANOS AND PIANOLA PIANOS. Weber Pianos—used at the Metropolitan Opera House and a great favorite of Musicians for over fifty years. Steck Pianos—Over two hundred in use in the Public Schools of Greater New York, and very popular in Musical Conservatories and Institutions all over the country. Wheelock Pianos—A great favorite with music teachers and the profession in general, one of the best medium priced instruments manufactured. STEWART Pianos—The best Piano ever sold at its price—a moderate priced instrument with a high grade tone and an artistic case design. IN THE SELECTION OF A PIANO do not let prices deceive you—'QUALITY' is the most essential feature—TONE, General Workmanship and Class of material used go toward the making of a high class instrument. The above instruments named are Standards in their class and are sold at the right price. PURCHASE PLAN—So easy, we are sure the method will meet with your approval and we invite your investigation. ANYONE OF THE ABOVE NAMED INSTRUMENTS CAN BE PURCHASED ON MODERATE MONTHLY PAYMENTS. Any Make of Piano Taken in Exchange. PIANOLA PIANOS FIVE STYLES STEINWAY PIANOLA PIANO WEBER PIANOLA PIANO STECK PIANOLA PIANO WHEELLOCK PIANOLA PIANO STEWART PIANOLA PIANO Prices \$550 Upward. We are selling agents in Brooklyn for the above named instruments and carry in stock a full line. Monthly payments accepted consistent with the prices and grades of instruments. Any make of Piano taken in exchange, liberal allowances made to apply on the purchase price. ALPHONZO SMITH, Piano House, 23-25-27 Flatbush Ave. (Nevins St. Subway Station). We carry in stock a full line of Pianos, Metropolitans, Thomastons and note roll music, and we give the very best and most prompt service.

FREDERICK LOESER & CO. BROOKLYN ADVERTISEMENTS. The Subway to Hoyt Street Brings the Loeser Store Within 17 Minutes of Forty-second Street. In every detail the Leading Retail Establishment of Brooklyn.

\$4,500 in New Dress Trimmings for \$1,500. Most Beautiful Beaded Gallons and Passementeries, Metal and Silk Embroidered Trimmings and Jet Garnitures. In the Best Offerings We Ever Made. PICTURE THE RICHEST, most beautiful and individual Trimmings that the artists of Paris have designed for the present season. Perfect in workmanship and splendid in quality—fine as any that any store can get to sell today for the full price. A great stock of such Trimmings will be here tomorrow at an average one-third of the prices at which yesterday we were selling many of the identical effects in this Store. Reassure! Simply that these Trimmings are so beautiful that some importers brought from France and Germany more than even their customers could assimilate, and the sacrifice of prices followed. 30c. to \$2.00 Trimmings at 12c. to 50c. These are Jet Gallons and speeded Gallons, festoons and ornate Passementeries of the most superb character. 30c. to \$3.00 Trimmings at 10c. to \$1.00. Black crystal and satin bead Passementerie Trimmings in immense variety of shapes and in many widths. All new and in great variety. Main Floor, Center.

Receiver's Furniture Sale. WHOLE STOCK OF F. W. EVERS OF 30-32 E. 21ST ST., N. Y., TOGETHER WITH LARGE PURCHASES FROM OTHER SOURCES, MAKES A \$150,000 Stock at 10% to 50% Saving. THIS IS THE MOST REMARKABLE FURNITURE SALE that ever came at this season of the year. F. W. Evers, who ran a good Furniture Store at 30-32 East Twenty-first street, Manhattan, failed and bought his whole stock from the receiver of the business. Every Piece of the Evers Furniture Is a Third Under Value. To the Evers stock, however, we have added a very large amount of Furniture from other sources—all bought advantageously. Some was sample Furniture. Other lots were surplus stock from our regular makers. In various ways we have assembled a stock totaling \$150,000 in value which the Sale began on Friday morning; a stock that is as fine and practical and desirable as any stock of Furniture ever assembled. AND ON WHICH THE DEFINITE PRICE REDUCTIONS RANGE FROM TEN TO FIFTY PER CENT. OF THE USUAL LOESER PRICES. Such a chance may possibly be equaled when we come to the great annual Sale here next February. It surely can not be matched before that time. The stock included and marked with the reduced-price tags is a comprehensive one. There is Furniture for every room in the house but the kitchen. There is Furniture of every wood, in every style and in all finishes, EFKY, HODY, and we say this without reservation, may find the Furniture that is desired and save money by buying it now. A Suggestion: Those who give Furniture at the Christmas season and those who plan to buy new dining room Furniture before Thanksgiving could scarcely have a more fortunate opportunity than this Sale presents. There is a very full stock of excellent dining room Furniture and much of the individual and artistic pieces that are most appropriate gifts because they will fit harmoniously with the decorations of almost every home. Third, Fourth and Fifth Floors.

Chances for the Prudent Woman to Buy New Outer Wear at Savings. OFFER A VERY LITTLE MONEY will go a very long way toward a full and satisfactory wardrobe if the Loeser Store is consulted. Tomorrow brings new evidence of that fact in these several offerings of Dresses, Suits and Coats, not one of which can regularly be equaled at the prices. One Piece Dresses at \$5.00. Just forty pieces. One piece Dresses of searose and albatross cloth. Some have lace yokes, others are self-trimmed and very effective. Well made and finished, and a full \$12.99 value for \$5.00. None C. O. D., credited or on approval. 50c. to \$1.00. Fifty-one women's one piece Dresses of silk, messaline, some with lace yokes and sleeves, others with low neck and high collar and some with deep borders on skirts, of combination self-colored silks. None C. O. D., credited or on approval. \$25 Dresses at \$14.00. Sixty women's Dresses, mostly of choice values in different colors, made over silks and satins in choice colorings. Also satins with marquisettes. Waists are the all-over Persian effect with head trimming. None C. O. D., credited or on approval. \$30 Tailored Suits at \$18.00. Made of choice basket weaves, cloths, in black, navy and choice colorings. Coats are in one, long with semi-fitted back and single breasted button through. Notched collar, also in the latest style with deep side plaited border. None C. O. D. or on approval. Second Floor, Fulton Street.

EXHIBITION. 36 Notable Paintings By Mrs. R. Edmund Adolph In the Loeser Galleries, Third Floor. These Paintings are for the most part copies of the masterpieces in the great English galleries, copies of the great pictures by Turner, Watt, Veronese, Reynolds, Romney, Whistler, etc., that are the pride of the British nation. Mrs. Adolph is known as one of the foremost of English copyists and many of these pictures, particularly the Turners, have been called by competent critics the most successful copies ever made. We have given considerable space in the Art Galleries to the exhibition and it will prove an artistic treat to all who see it. Third Floor.

\$7.50 to \$15 Waists at \$5 Apiece. So me from Paris and More American Makes. HOW WELL THE CLEVEREST AMERICAN DESIGNERS can put charm of style and good fit and fine workmanship into Waists for American women is shown in this beautiful collection that, through a trade circumstance, we have to sell at an average of less than half price tomorrow. The group includes the prettiest lingerie, marquisette and voile Waists. The lingerie models are trimmed with fine laces, including a number that show real Cluny and Irish laces. All are hand embroidered and to are the Waists of marquisettes and voiles. Hand made Waists from Paris at 50c. to \$1.00. French marquisettes, beautifully hand embroidered. Even the grand offerings of the past weeks have not surpassed this Sale of Waists at \$5. Chiffon silk Waists, many made over Persian, in all the best colors as well as black. Crepe de chine Waists with hand embroidery, all prettily trimmed; sizes from 34 to 42. 50 fifty-five sample Waists in sizes 36 and 38 only. Values up to \$15 for \$5.00. Second Floor.

15c. and 25c. Hose for Everybody at 10c. FINEST HOSIERY at regular prices is impossible. It is a phenomenal offer and illustrative of a condition of affairs that is only possible through the great outlet which this store has developed. The Hosiery of fine gauge seamles and full fashioned cotton, also cotton with unbleached split feet and all have spliced heels and toes. Hosiery which is regularly sold for fifteen and twenty-five cents a pair for 10c. Men's, Women's and Children's 25c. to 50c. Hose, 10c. Another great value. Black cashmere of a good quality, black fine gauge cotton, black silk lisle, black gauze lisle, black cotton with unbleached split feet. Children's fine ribbed cotton and silk lisle. All have spliced heels and toes. Men's, Women's and Children's 50c. to 75c. Hose, 25c. Black fine gauge lisle and black gauze silk lisle, black superior quality cotton, also with unbleached split feet. Black lisle thread with silk side clocks in self colors. Children's ribbed cotton and silk lisle. All have spliced heels and toes. Silk Hosiery for Men and Women. 75c. and \$1 Silk Hosiery at 50c. Black fine spun and pure thread silk in black and colors, all have spliced heels and toes. \$1 Hosiery at 60c. Black pure thread silk with mercerized lisle garter tops and mercerized soles for women. Black and colored pure thread silk with mercerized tops and soles for men. All have spliced heels and toes. \$1.25 to \$2 Hosiery at \$1. Black pure thread silk with all silk and cotton soles for women, black and a wide range of colored pure thread silk with cotton soles for men. All have spliced heels and toes. Main Floor. None Sent C. O. D.

Double Faced French Velour Portieres. \$40 Quality for \$19.85 a Pair. THIS IS THE BEST OFFERING of Velour Portieres we ever made or ever heard of. The finest quality of figured jute velour and most of them of the steamer from France but a few days. They are all perfect. They are in the most desirable color combinations, such as red-and-green, terra-otta-and-olive, cream-and-empire green, nile-and-rose, rose-and-olive, etc. If you have a bit of merchandise history back of such an extraordinary offering, but the important thing is how well they are made. That women will find here tomorrow a value that has never been equaled. \$9.50 to \$10 Lacet Arabian and Marie Antoinette Curtains, \$6.75. \$11.50 and \$12.50 Lacet Arabian Curtains \$11.75. Three hundred and forty of handsome Curtains, French make, in thirty different designs. Real Renaissance and Cluny Curtains. \$4 and \$4.50 Curtains at \$2.50. \$5 and \$5.50 Curtains at \$3.00. \$6 and \$7.50 Curtains at \$4.00. \$10 to \$12.50 Curtains at \$6.00. \$14 and \$15 Reversible silk and Tapestry Portieres, \$9.00. White Irish Point Curtains. Two thousand pairs in thirty styles. \$4.75 a pair, regularly up to \$7.50. \$5.50 a pair, regularly up to \$8.00. \$6.00 a pair, regularly up to \$12.75. \$6 and \$6.50 Colored Madras Curtains, \$2.99. \$6 to \$10 Colored Madras Curtains, \$4.75. New Nottingham Lace Curtains about a Third Underpriced. \$1.15 to \$1.50 Curtains at 70c. a Pair. \$2 and \$2.25 Curtains at \$1.25 a Pair. \$3.50 and \$2.75 Curtains at \$1.95 a Pair. \$4.50 and \$5 Curtains at \$2.50 a Pair. \$4 and \$4.50 Curtains at \$2.50 a Pair. Third Floor, Fulton Street.

\$2.50 Crystal Broadcloth at \$1. One of the Season's Most Fortunate Offers. THIS BEAUTIFUL FABRIC was woven for a maker of women's very high grade suits. October's unusual mildness proved an embarrassment in his plans. He did not take the cloth and it has become a Loeser purchase that we can sell tomorrow at \$1, instead of \$2.50 a yard. It has the lighter of broadcloth with a suggestion of the quality of a shalimar. It is very brilliant and is 52 inches wide. The fabric is made of fine cotton, navy, and black, with a fine, soft, downy, dark brown, old gold, rust, moss green, olive, light navy, wool navy, black. Rarely or never have we had a fabric of equal beauty to sell at a dollar a yard. Second Floor, Flat Floor.

\$1 All Silk 26 Inch Messaline Satin, 59c. THE LOESER SILK STORE has been a focus of interest in the past few weeks. Offerings most important in new fall silks have stirred great activity. Tomorrow they will be continued, and heading the list is \$1 Silk Messaline for 59c. It is a splendid quality, yardwide with face edges, burrows and serviceable. There is an excellent line of evening and street shades for choice. \$1 guaranteed 35 Inch Black Taffeta at 60c. \$1.25 All silk 35 Inch colored satin Messaline at 70c. \$2 Extra Wide All silk 36 Inch black Imperial satin at \$1.25. Main Floor, Bond Street.