

My dear Obout. As the day Suging is we have met the energy and they are ours. A big brotony Prendent and both houses of Burgues Refublican. This however incerases The lespons belity by So much Any blanders made now well last Ideally on the Republican party Blown, of Course will be Secretary of Stato and we will have perhals the most bulliant peace Administrations The County has ever thisover. I look for unhrecodents presper. in This Cook and how belt In 20 years from to day, you would I careaf throw 6 Januares Gest Coters with vast manufacter

Establishments and numerous Rad Roads with its fino climato and water will make it the most delightful part of the South, of not indeed of the whole Country. I will he a great place to move to but not to more from. There will be a guard chaning out of offices especially Port Offices. Inisa brothio, I is cuiden stood will have to go I do not think Charlie will have to Vacate, Here is at M. no body to take his place and torido that, I do not thouse any and could ask for his lerewal. The tille Children we of Their and 65. and be your mother and I are Ruping house by our seles. The first time in our lives. los que a lettle longione the mights are long but whom the whole we are doing boy well. Two home enough to eat and money

everyth for present wants. We hope to get meved This week? The old Syrus is not get. On Saturday might The republicans had a try refly Dan walker was Cheef Cannoncer, he is a democred you throw. but he could not fingo The from televelands friends we bodily Cut up especially the Fillisper and De Doncan. He children were all will when we poerd fin the tart. Bub Cook is now at Comporance he are much pleased with the Weaver our new P. Co, also a Sto Motchell The P.G. I found a boy stimming a Large Coon a few days age. It looked so wice & bought IT, pince 10 ch honges it, and had I Costed and eve all preneunces it first rats O Green to try me a robbil Occasionally, They are asolveup

as any other fresh med. I have my Coal laid in one flow is now Costing les \$5.60 per borreb. other eatables not so high I thouse after coogs moved, given good healtho we may have a pleasent wanter toffer will be at home Christmas, we are nit lodling for Jeddie. I am to ach my The Celle gools-No other news That I thunk if gun In They yours in low gen fathers

Simestone Floren Lever 18 1. of badness, you will know the reason L'art Fry duy morning the sad news of sinter Josa's death relached I stook the first find as they were home from the funer I met them welning home Sister had burried the Juneral sources werl over I had the consolo of knowing That I had

done my duly. I made line as fast as I coul not loo late though to com yout Eld. Ed will start by Princelon on Pridey mor mig I will reluse to Moulgo Sulivelus as In Poller. A heart full of low

Micamber 11, 1888 VIsm Edwa because gale address me as Jumed In Omn & la a fin On as Inia This making In has come ichter us all Ant Think I en full-for Aury In a mont as I of In your I believe you lived ( an with all Vigan hunt. Many and Parta lined he and from I and her to. and The front wood I was of hom. The all Yell and duply ful for loss, as on whather I com

triby from The was a dutille doing lifer - who was all Throng a Hather a horther cauld ask and Then what a Kind liven Instructor was . The was a mille I he gare me buch a do I He is give and we hope to Retthe world, How gil Ah This life but the all that the injoyed lift very much and brothet-trul like Allen Amah Showsh elde Al Short Chill to whow Bry in your married this told then The angels came and carried for the offices let-

is Think The The Thingels frome come In me this littere" and I live I you ta. I'llow you Ed 'on Cwinds That a Chring hus beind would have fract but christ Thur in hil themt to his on the goon was to you The mon to loping the third gran fin hond and hand, Where me doubt it will en be a phose Jemembrance to your Show Cord morried you the your your all That a ( woman I cauld and That was him heart, Ahm & with with you to you home was with the tole opnit the Westh went with Morami. and the much that - by bung welling to hunde in Infresser Gam prople eur in properly I did Thrill she

Do mich. 4 Thund then ond on by The world

Lanestono Min Deg 14 1886 elly dear Nobt. your letter Carre to hand gesterday. We are will as asual. your ma writes that they had a pleasant yourney and that her health is good. Effic will be at home on The 22 00 De Derieng is sending us a bex of oranges, we look for them every day, The are pleased with our move This property Costs us \$66,50 a year cents payable at the end of every two more Thes we think we have read a fine of change. Leagu will soon close his School of Shout hand - Miss Metho is going to Nashardlo to um for Lebrarian when The Legis latures much. Lyeice Stram wants The P.G. & do not Know who also Some people mentions your pa in Countition with it.

a new church is to take the place of the old buch night away to stand brotions The Parsonage and Academy. Mrs Collins is not of all will. Our apples are used lefe plung in market at to conto a dozen Wednesday night eve had a find know, I am writing up Bob five ingston and Possum breek It is a mice pastino. The lettle girls mate Eplendich househopers. I am Laking The Holston again and Babeach San & mu tho Ridemend. be how plenty of begetables of all Kinds, let a would be glad to have you with an at Christmas, want to see you budy but do not want you to waste your money School & thente is doing bery will. Jolles and Da hutter wear a the as this weeken he are not expecting any Company during the holdays - birto soon affectionally your fathers,

Smeeton, W.Va. . Dec 15- 1888 Dear Robert! It was a comfort to me to get your letter while at Live stone and & have been Slow about sudwering. Andred it is any with and effort that I succeed in lovey any-Ming since & lost her who was leaver town thou all else besides ou earth. I have been teaching, non for are well which seems are age almost, and will teach are well more before Queas. I has been in the School room appin and Leeves to be quite fofulor with

The stredents, Six more mother will of think wer my days as a & chool teacher, and shall not und how soon The , It day of fine comes; also I will remind me of another , st of fine when 2 wer eager to eda one more week role away, I have been doing some work in Mullemoties and reading Laire's Literature are "Hord Times" by Siakens, Warren and 2 have fint finished a stable for our cow, and none two Soon either, as we have just forsed through a severe Spell of weather, snow and ice, and are theatened with dreather. This has been the cloudiest winderst Treoriest Sunday & son Spent in my life.

hother and to have just cetured with from call an the Rennedys, brings of offler Remedy's flock have been boy cutting him on account of the stond he took in the reacut election; he is a good man and very kind, but he tis is very impudent, and is never long out of a difficulty of some Kind. I speed a few days with Here at home, where they are very cumfortably situated in their wer boune, and in my judgment for better located. I never like The Meather profesty. Olice and ada have improved wonder fully both in physical offerance and in manners

Since of last saw them. · Charlie was down, reaching the Bend soon ofter we returned from the funeral. I never Keew him so full of life, nos in such high sfirs it; my judgment is that be les been making good thing it at montgomery. I suggested a contract which he accepted and which he and Ribble hove since signer, by which Charlie is sure of Ags for moute, Cora always shale so thirdly of you; flew Laying, "I love Bob Huff. oler" "I believe Bob somed my life lost Summer," "If Brothe Bole euge needs any left, I am ready to do every therey of com for time." wile to me where you can, thister will so south ofter Gruss.

long dear dear Brother; received your anost welcome letter this eve. I have been thinking and wanting to write you all the week, but have been as bury with achor duties. To day was the last school day in the year of 1888, and & am glad the year is almost gone; it seems like everything auful has happened this year; and yet, & think & never spent a happier, or a saddy year in my life. I look lack now and

see how happy we all were last Spring. Co often acid "me will never be trogether again like we are own", how little are know what is before us. In miller brought vie down this even ing to spend Christmas, she improves very slowly, hope the change will tenefit her. The has Cora's worn, & don't mean to be selfish, but you cannot magine how it hunts me to ace any one me her rom. Dear darling witer, how & long & could have been with her if only for a about article, & common go to her for advice now but & do try to do as & think ahe would wish & bower go in the partor, or six

down to the prices but & thrink of the darling sister as kind to me. & did not succeed in getting any white gaponicasbut will gather some moss and guer greens lomorrow bend them to be larged upon our darling s grave. have nine days holiday The college logs give a concert tonight for the benefit of the College. millwood has lost quite a member of acholars wice hurs Bush left. mother received a a kind letter from mrs Bush a few days ago. Churs Junes's health is not very good in Balon Rouge

she is a dear good little avoision, and & fear she is not long for this world, Inother dends much love eary she will write to you som; hardly an hour parser but what we speak of you. Dear brother, you cannot know how desply me feel for you in this our great affliction Write as often as you can are look forward from day to day to the coming of your letters, they are a great comfort. Famile & all send love. God bless you dear buther. your little rister

Significant Court of the State Dec. 21-1888 My dear dear Brother: received your most welcome letter this eve of have been thinking and wanting to write you all the week, but have been so busy with school duties Today was the last school day in the year of 1888, and I am glad the year is almost gone; it seems like ed this year; and yet of happier, or a sadder year in my life.
I look back now and See how happy we all were last Dering. To often said "ive will merer be together

by sistable social color trura again like we are now", how Itale we know what is Defore us. Mr. Miller brought Vie down this evening to spend Christmas she improves very slowly, hope the change will benefit her. She has Cora's room, I don't mean to be selfish, but you carnot imagine how it shorts me to see anyone use her room, Dear, darling sister, how I long I could I have then with her if only for a short for advice now, but of do try to do as of think she would wish mever go in the parlor, or sit down to

Simmer Solice Colores the piano but I think of the darling sister that was so kind to me. I did not succeed in Strit will gather some moss and evergreens tomorrow and send them to be laid upon our dorling 's grave, holiday. The college boys give a concert tonight for The benefit of the College. Millwood has lost Lince Mrs. Rush Bet Mother received a very find from Mrs. Rush a few days not very good in Baton Rouge she is a dear good little woman, and of Jean

The is not long for this world. Mother sont love says she will write you soon hardly an how passes but Swhat we speak of you. Dear Inow deeply we feel for you in sons our great affection, virite as often o from day to day to the Joning of your letters, They to the a great comfort. Fannie + all send love. Dod bless you dear brother. Your little sister, Mr. Var. Gestitute, Junnary 13, 1889. My very Dear Friend you have thought ere this that sister has gotton tack into have a very plansible excuse though and I am sure of will agree with me pectally mut home and spent Vanual. & had a delight feel fine but wished for your rry presents. I had

Who to graphalbums given one of the most prominent & have with me. a friend gave me a beautiful surly solding mirros. Joil gan me a lovely little bocket book a beaut handle knife and fin dollars in money. Miss Clara Horley come back to school with my and stayed two nights, she and Mr. Webb have entirely guit and & Strink the is! Some what in my "row, without a sweetheart. Pat came & see me last Sunday and his being here presented sory writing to you & don't have time to write during the

with. We are preparing for examination and and ahustud ging night and day. Did your gill come home xmas you had a sice time & know. An haddeomest present was from the young man that correspond with me, but & can't be lought so easily can I & have been to the M. E church and heard two long sermous since & began this letter, and now that old retiring bell is ringing to make one stop, you will never answer this & fear, but if you will only with this time to

will try ony best on the rext one May & expect The sice lough litter from hen is when I extech With Inamis or wishes Vain-

Princeton, Wa, Lear Robert, Enclosed gan will find the problems you ice and which I received a cely pistance School las just cloud for the day, and I am not al ale sorry. Ma was mistaken obant to time of the opining of the Second Session It sees not afew until the you Loy of faces February and Joes not close suited the 17 m of fine. If wite he fully he fore I can reach house, I think how & shale go out if the business ofte this year. I have not decided yet as to

what I shall do there. I have confund notion of going into machine shop. I am just beguning Ma Cauley's Wist of Englad. Have fust fine shed Dambey & Some I had not not it since I was at Calcego In 78. Jo sut for one of Ca bles novels, Dr. Sevier, which of have never read. The Kunedy 5 are not very fof alor Just as present, Kennedy took too wach interest in the local cliations. His Joushiours are boycuttup hime. be have been having some cold weather, server and ice I cannot will more mou. De not wail- to a commodole a good aty funds before witney though

IM Va Onstitute Glade Springe, Va. February 3, 1889. Mr. Huffaker: & commenced to answer your kind letter last Sunday night but as I was not very well I did not finish it. It was really nice of you to write to me so early after ony delay, but you have always been very forgiving and patient with one! I am glad

you had a splendid Xmar, and received or many nice presents. you treated that young bady very badly indeed; and it you ever here & Shink I would give you one of my old fashioned between they do you not expect to see her soon? you are young and if you appreciate her as you should you would go to see her. If & overe the and you didn't come I would cut your acquaintance. you must do fetter than that, Tell me her name if you don't object. I have from down town this

afternoon to see a sick friend. Prof. ia very kind to let enego. Somorrow we have holiday and Min Lula Jerry and engelf are going to spend the day at Saltville with Mrs. Hobbe It are going all by ourselves. It's will try to keep straight though. It's how so many nice girls here. & wish you would come at and let me give you one for a sweet heart. I want you to go to see Miss Dru Hall at Trumville ouxt summer for my eake. The is good and smetto, & think one of eny best friends.

Miss annie Hostenstine of Wallaces in here som and rooms with one. She has just told one that your frother Ed had from married and that his wife had died Just before Xmar. I am so sorry, & did not Even know that he was enamed. When is your echool out? & am ense you will be glad to get home again, and trild fire for your mother, Just think, & have not seen you since the enouning we left your home. That visit, from first to last ovas the most

delightful one & rvir made. When you go home remember one lo all the family and give my very best love to fiddie. She is certainly a smeet and intelligent girl. But enough of the past. you know & am fond of living our past pleasures. I am not looking forward to anything particularly bright in the future but if health bermits & am anticipating a more useful life That is first why & am here. I would like to much to see

you and ford (my toro frothers) Logether. fort is quite a nice, manly tooking Sellow now. He is first as good to stay at home as he used to trand, & think now is learning some sense about falling in love with girle. Exerce the expression. He is much more settled than he used to br. He reads and chider very much and best of all composed nicely. Q & never told you that he began the study of medicine last summer! Pa an

Ma persuaded him into it, but in a very short time hegan. it wip. Bru know he was alway opposed to tring a physician. He are going to publish a faper in our literary cociety and don't you want to take it to help me girle who are string gling Is make our exciely a success. It is only \$1.00 per year, and I feel very sure that we have material enough to make it interesting & must will home tonight as & will not

tax your patience any longer. With as soon as it is convement, for X am always glad to hear from you. Sincerely

trining Sumestone Gener March 7 1889. My due livert: your letter come to hout oper luday, on do we were lidly sorry to hear of your elevers. In he Ince it is not as bad as I might be. and till It is bad enough. Diarrhea when it is not the Seguel of Semething dre, I think is ordrawy a hery managrable dis saro, sach I hope that you physician has gram agon a presentian that will brug you round all right. In the montione be chieful and lespeful and rest a few days if meaning. If however after a fair trick you find you are in for a spell of Sidleness Loose no timo in getting home her is The place for your where you can

Suntable allenhow and murring and the Confesting presumee of your Knowled and family. Do not allow the disease to get you down away from home. Still, we lope for the best and Truck you will be able to fill out your Contract. To are in comal healther such are anxious to be in the garden. I Think we will plant peas to day I have a fine bid of Callage Coming on I want to plant a Large Crop. We are hoping for a good frus Crap. Two home all trads of prist be will try for a good garden. Our prulley is doneg mi good. ogne ma gets one egg a day. Mrs bolling is declining. This Strain the Esqu's wife is sion The Syrice is applying for the P.O. I doubt if miss Matter is removed for Several marthes, Bot Strain is expeding an appointment of support.

Oyour Ma I dave 80 y write of one about The big fire. the N.N. Office is not dept at the hardwore store. Dave balker is going to bolerada The Teaders are not allogether soprelie and I down them /2 well be with the . Lyon is by no men, a more after my heart. I am till teaching The girls. Amoun and Jeddie write cheapily - hovers he as for Thatis night lotely. I guess his manying will energh. Belle's parents are very Senorble and buy aprilable judle. Her married is is a good some and & proces en My on at lans or a trens She me Mi Its make a good to endleshed I am just formations The Afe and Trimes of Juneary term It will fell about 40 pages fores Cap Posem Court fells 40 Writing hough is sather interometer

with you of the dwart famy Alter. open affectionate and Sys pathigny father gor 5 Huffel? in

Pagle Fumace Tem, May 4 th y 889. any Lear Brother; If hos heen Some time since I recig. your letter and I will not want any longer to answer, I hand from home to-day- they were all as well as they of evally are. Have had no mail from Charles for a long time the prospect Lappose delices from from doting such and in things advisite to me. quest that he, in his in thusiostic way is beginning to feel enormous. I wonder he has gotten him a princeablest for the ac casion & Office vorote to me that he was not coming home as a as they were morried but would wait until The summer I am glod of that, I will get to see the lack fellow thin, I don't guess marrying will change him which and he will by the same ged Charles. I imagine you will be excudingly glad when you and Judio will be some with your school, and can get to a climate that suito you. It sums that you how the most of bring in musuitable climates, This

climate him sents mense enough I recolon, but the water or something kups my bourds in a devanged condition morely all The timo. Devill be glad for this resson when I can have I have hunting truskey's accosionally of lite, but hour had oney tobreath success! I how learned to egel Them. If one goes to the poods very every they can hear The gosbeers. Then you hour to hide where it will Ir comment to shoot, then call. If the gobbier hosburk been fooled to after he mie come to you, thus you shoot the poor fell in cold blood. Me largest one I how

Willed arrighed 17/ Jours pose there are any turkeys hunt for Equines Philips has conduded that he will notoppey for the achool Of Princeton & april Moon who It do next year, I must have a change of come sort a change of position if nothing use I like to stay him very much but a little longer and Qually be a recting of I hourt armaly. I was Jelse. Write goon. Your at Brilling

Cendota, Virginia, & am enre destood my cilence ever meet again & Splain all to you. This time in \_ not neglect but never dreamed. There now, & are read this our, and if you re a presumptions fellow & send it. I that kind and know Iderstand it That some thing & thought

Low fiding to you when i've the and & wish now & Gad & never had comuch the in all my life as I has Mond This summer but & will not mile you a gloomy letter. Ill lock my little crosses up and not burden now with them. Perhaps you are at school now, and it would be enel of one to write you sad things you never evelime a single by line while & was away from den always wrote someand encouraging cappier after What are you doing now! In funalimation you are pouring The rouse of dival book, studying how theek from killing some one. & stainly do wish you health und success while at echort. I know

you are surprised that I write from home, I was so fully determined to teach in Jeron. when you were her. Well. I had to give up my cherished plans in that It petion but have become intilly reconciled to my disappoint t and think of probably bed find Mr. Gilmer de for cohom to evork. Jone of the most interesting cies (literary & ever saw. The girls In charge of it and that & suppose no the great reason of its enecus. Mer. Gilmer has tried to get one to prom. ise to teach with him at least, a brief munker of year, but I have not dong so get. I have other plans in view. sand may have to go to school live enve sessione before & can accomplish them. Hannie und Minnie are both in school and under my care. They are to the lovable

pupils and I chould be very well for them up. Hannie has had another attack of that dread ful that Disea . Dr were very rineary about her but the seems to be well a gain. I am more attached to her now Than zory before. When she speaks or looks at one, The does to in such a cray that it goes straight to my heart. you did ich to her. That was what you should er done long, long ago; but not and ones cake except her own Joh. How raily rekindled rame strange for-Ird overyou had give a visit among old friends ages is best our house. I was at fler. This times on thursday and Friday after you were then linnie and myself took a long horse back side Friday afternoon. He went lo



Lime Stone, Term Thursday -Vear Brothen, 7 mili you Mis lille wite 45 lell you that you ada, Wirk, Ben and bracein Ernish un invited to the Party Wh Mr. Wirls on Finday unglik Carrie is going to send within invi fativery down to min wor nyour cone but y thing through to terrid by you can Tell ada to or zuse to zvere, and be

prepared to stay bris Innday. Nout fright to bring that pair of sorks We have had to mare Time you ligh. Ruzum to zun and bring the coord Troind, Livingly Juddie

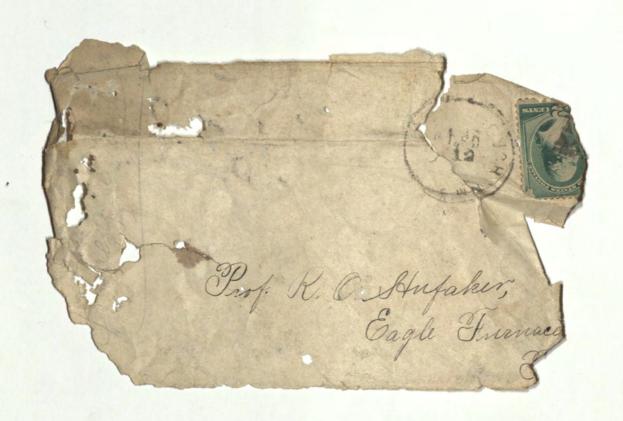
allwood, Jan. Dec 3 1890. Dear Ed. While little Edward in busy with his play I will write to your, you don't know you left I felt I lonesome all day I Widn't know what Ito get at, I felt almost like I would have been willing to such how is, everything troped to lonely your vist was a bright menony of it will always be smetto ene. 2 felt to badly over guing you Encle to little Inach to

Carry with your but I was thoughtless encorragh to forget you evowedn't has Vary Ewopper until after you left it browbled so I wished I hadn't though of it at all, but you envel forgive me for it. John I lord Edward uncle Ed is has gone to Bristol, and when I ask him con where is uncle Ed! he says withe Ed don to Bistol", He Says it real plainly. The fellow little fellow mises torcle Ed I know he does. a letter Came to you from Non york in Salunday evening mail bent Cowldn't formus ded until bronday. I hope you have received it, for I know you were

4000

mading anxiowsly for I haven't Shot the bus glas get. I am wet waiting for it to come. a Slayed by my Self Sunday might und it has one long wight. I never was so glad to hear any to as I was to hear the roosler cron for day, I heard the gate open in the enight and if aly one had come I . Idon't thinks I cowld have Steaded my hand encough to have shot, I wasn't so frightened, but I went into a erevor Chill like I always do when any thing Elartles an nomin said she was Coming back that evening but

Herry herely Bre Euch and beatingon the mite, Edward has gollen over The crass Spil he had the last two days you in here and a has been just as full of like today as Con fe . hobody know di Compe hunting lince you les but nogame masto be four Hal dog I recon thought washine Something was ten Willed and of his our Ruced an old her total in anxious to their from



Eagle Furnace Jun may 8. 91. Chrickley City Yun Dear friend & brother yours of 4thins record. I was so glad to hear from you that I will at once ciply, though I have but little of interest onte. First, as to myself I had a long spell of La grifipe and was reduced to a helpliss state almost get I vollied at lost and am in pully fair Date for me. I preached at Euroka lost Lunday wering. The frest lime I have trusto price in about

four months. I went to the Quality muling at Northwood and prevehed on kny relieve. It was a pour affoir. my voice is very much broken I go next night to kingation spend some days there perhaps, and then to Noun College where I will by po preach the Bue-Coloureate Dermon for them and them to bleveland to Com, at Centerary Of coich agun Could be with some. I have not found any for man who seemed to enjoy going with me as you did alast the Hunk was no good he never won go to hear me preach - Ded enot care to hear anijone that matter. I do downt up to visit is on your toay to I

in The fact. Well my family at hove is small. Engene has ben at school - living be at home in two works - dancy pretty well I Suppose - Union has been for Ludonary will a feet wills. - Her be at min grades are very good she got 100 on lenglish Classics and all hu grades were very good. Ed is going on pully will, But was married 30 of Dee but has never brought his wife to se no get. da shave walter enough af Jamely rollers, and mont Chaw will interest There have bundbut your unportant Change in this Declien that could at all interest you if I were to not I am glad your Jother in in book good health - hope he may ling line to blip the

Church and The works of not by his active with get by his holy example; and to Comfind his family. Yes & think you ought to get monried provided you can to days he thing sure so en find I fraid one whom you Could devoted by love and hus and one who dowle as devotedt love and lind your . If such an One you should find remember that I would take great felence in the forming the Cheming at would small you twain one Well I have about felled suy shut and all close - my love to your father - and do Come to see us. Be forthful to your god you ras and your self. O the Turkeys are grobbling and no one to hunt then

Vimestone Temessee Svan Ed. your kind letter received a Vew days ago, I feel some what Cired long ht, I have been hoeng and plowing in the garde most all day. I have been a grass widower you nearly two weeks more. Elly were to Vergense last Transday week, she will return dest produce to the getting anxious for she and London la come home, I am getting lived balching more than that & see them very much. I lout see how a men clere

get along with out is wife No doubt a married war is happier than a sing mon , 8 very man ought to marry, yes Ed I would like to take a brig rator the mountains with you, Is I had plenty of money I would travel around a great deal more than do. I don't expect I will alay here longer than this mext year, It depends o how well they pay me. I have what you might chill a large school and very amplet pay, It is the hardst place I have shough to collect money. Next year my assistant will have to leach for dess them GKR

Simestone. Term, July 7 7 1881 Sour Ed. yours of a late dale received, was glad to hear from you again and to know you were getting along so well. The are all well. Fordon is full of unschief, Illy and I have been pulling up herries, I don't think I ever saw so many black herries as there are this year, We have carried some thing in livenly care, Have preserved a few cans, have made severel glasses of jelly, hav mad severel erocker of black berry jour moved

with Anckle berries and expect to make some wine. We have gathered all the harries ourselves, Elly and I went out yesterday ance gathered 5 gallous in a little while, and more than that today but I lell in old cow get un my bucket and destroy 2 gallow of mee berner. Our ripe peaches are all gone. We have had several peach pies. Our garden looks fine You say you will go down on next Freday or Salurday, so I guess I will see you at the brain, you must come and set us while you are down

Ed I would like to go surveying with you, and thank you for the offer but the way we are now situated it would be almost impossible for me to go now, Ove can't both le ave home at once on account of cow, the cheers, garden &c, and Elby cant slay here by herself. So you can see how it, is, I would enjoy the bul I know, Well come and see us, all send love your brother Chaz.

Chucky alg, dinn, They darling Id hear,

thing empertant or not me full maner to som Idorit believe a treat va mapped up in has lon In the my lever the my On the Elestand and bil In a han has his bruinter to our to telinik a) It is now nearly ten ploat and John & short only been thome to bot an the though alice & Cuma Came Odom This eving aller larly of mall slarted on analle down to the river, but it was alling to late and in my a little below the old will - John on returned in kept in with

Them to the tof Delie Will just beyond Cerester Elhert ala Box our is hollered to is to Come on down thon one wise or met on moreland must to sleep on after my girl stiere of It took tule up to bring like time home, withressed 17 7 him h hed by has nelle hall is not very well or letter Carrie to the cale golde school wear Piral Petreal Called asbury schools and that

they would more up chare will how erick - Said the receil fail soo or Ben assistant place muld hom been gind to alice his a Der heil worked for Charlie. with the under standing that Charlie muld live tres ( ence to get his dan in wheal Charling nor another Eller Comes Iron Jeddu today paying Ochat Opince willing the the at Eller Charle Had had Da tetler from them up chere soffing less prefere elice to fuces while , a musi alice will get In the juilly tally - But of

A Allen

arrive he raints alice Trope she can at it. There is meat regressing on luce. all glad Charlie no do so much better mil Oit among from montgon I soll be in Jeldu to - Wala wa Ital ohe was groing for and mill h about it Butine Bo Thur audung paid " to the Culy tet ada go" Itu and her morey to con me on towerking Tal Olice doesn't Come dam & Bre with

her will day nothing more n ometing Pake that-Etie opoke esp at once + Daid she, digliet chicel the inglit to thing that mel & courtide to play there & alienas here the things the might not pay any more miles to tell then the would and ther money a come thomas on when the vanted to Come . 306 said it Cooked like she new wanted to come boe When the of array and But find us & said well if she mild raction stay ut dguess of all del a Cot & trucking - They seem I tuget that Isda affinally

elongs to chur y sheri they pay gr or come o all to sees in the what a agent and Ditu trol chin chal m ourse Jeddie is cotherles children 5 that mon bruding Chan ar voller. ada & Rob one cholle by ada lioning stayed with

Clien or constante Louis doubt but that add will come tione in hon makes when they won because he will thing Bob will full Curta she does not odd approvator it but their Clas with I onice chings - how m recedencher which in Trust critica for add Corne to passerligtin Mercine in pair there or as the wanted a Deel like it amild red ? all because ada Both Brief if hear sor up then she

smild play with us - and alize a ledder would come to them I Sthonghit the you gon to Bob Jelt & Jones de l Pairle was tak your Oil m had one thre opin ally Intury of houselfly lead a some one o go assistance for gimes asked when need to Johns it was let with them shich rues me done to cay Ithought It did Ist mideratans at was a final grangemen at all out on the terre being the John more to ship

around to suit tumpeling non, dear, I hope you will Low nothing to pay in this malled to there In 3m & Bab hor come do hear Jalling net already again - We long or in tion ils home to take the only me can say nothing swhile cleur in a Dinancial orac Elicard not at Fr mille the last of Sept. Toke will be here will bline elise does of the Charlie ad Inile of on of stay metil derittuay any way I ada 194 has ther relations all around ther I expect to have white all to cont In ala will not a Juded ture horr don't you pay augiting

telling her to go on with Charle it she rants med ( But med not them that you do it - Exist said Conglet that of course is elle goes & Markier add are deticus - On Rover Con adalBob is about Class my thing sill tell her line on colie with her con full week and Dienic for st is vily

or Jin sules of and it may come order chair she expects Dit me Town if gine wite a ada hat ghin tell tier They well tead in a law days In the place on alice , Jeddie and at some art public if ohe sed not get the Spection rude pelivol ell detuil ation said eunique about 3 mir freks with my fer me Alion to alklule schidule of the example will not their you termal all highl - Work time and Ithing the Gall ful Berhalis the law cont the exam

the organ you will Come n aon Du ( Curra to de outrustoes 12 t devit I received.

Trumeville school of mile the Facult On another fage there is there of the molecular dep. and I State of water That Spring To Than the that it at al take

lifed her taris. Laturday -

Baston cart nor. turast sure Slaving Inste m

Conservatory of Music Concernati Chiz. Aug. 23 - 189/-Mr E. C. Hu Halur, my dear frund; I phall Joffer no exercise this there for my long delas hu ripling o your last. Tul-My this much + ace solvey, for it has Carlsell we to miss gelling one of you Charrying letters al tus trific - Honory 2 liohn you mel

not retalliste or clear & shall be desired that plusme ory long- I your Cara har told you where of air the, and as my littles is hedded that way you, will som the that I am here - my thearts desire is only partially realized in my coming to life. I always priferred Bothon, but as my true was or Humited & dicided to Cospera thre this danner and my Boston another tune - of I our start to la Conservatory again I doing & am well pleased tile If-grove mymonolowe dometimee, with 45 for 37 prayer in one building and price one at facts of chesse estates forfinding or screaming- In stand in the undale trall on the 2 floor and listen for arother you would trust it was Bidlain at home or a crazy-hunatic mane asylum - But mi sunday genings are so great four vice in a whitefur falmost fighting you - Here is my regular round for the day, and

mile no variation except samuela and buday-Gono founds at 6 dense and friance from at 6:30 th 7:30 when! youngs smide for trigle fact, you light to get with in self definer for here is a have bu lovery Fig rober and it wheld maken the dead -One tions acrile weals-Then practice loving ollier toper with I oglass for dunn M-2 ochkali rion practice all, 5 6.20 Mus m strike out for a well for exercise and hat is ofhen my ence boguet opens bride orenny de piglets

and plists midne a minimure make print you turn- Me dile thon an timer fortchis to get back in Truck But m managet a great-deal in lie tifue - & fred proh a took difference in the ways of the prople There and Jouth. The moulen are grang fact of freedy to for aste- They go all our the city aforte alridel bycycles as de all folds, Delin mas not chight of guess - Well to Murin

after supper until > relief m orsil- each other them fractions begins again with goefral the Ang spride and long prino is Enotacity closed - will for the gas whither you are ready to retire or a terrible predicament, but me hon light question and with him on the Danddoing now at 10:30 - Saturday afternoon of theoret of " at - 2 below till 6- and then my see Jonnechman in larnest - Gesterday on chull hire hours of the Ort- mileun las Eden Carlone of the lookeest places\_ & com or brush & was daged and orone constilled not - I would like to how had your with your artistice the Line paintings- Jones from tring magnifile from all Constitue as displayed diere would like of speed a wich in the hulding - Thet "real lin" agystian

Municipality attracted my attentions for golde asseille - What Saturday on wifel moit the good and another to love Island fand in me - Some places are forbidden ne hat me prince - are allowed without diaserme so me as where my theory diaserme so me as where tribes ency morning to the directation trible ency morning to the directation this Brief and me Sundays an applie.

long Chapler Will to notes and prayer mare not allowed out of our rooms except to got to church morning and anglet and: for meald - & trans-bru tiall crayy woday -The Frank the Colice down in Correntsthere was too way f getting to Church Jouly by total and anyout Aurately Hearn Hoods do not come up on the streets, so how bun the de room all day. Me generally lay in a suffily of

furili accidies eta for Sunday and I how consolled engel mile that and any belles will a little reading for our in- But trought & definited up a crowd and must to the heart churgh in the raine - & remember when I have born to church from old willwood in as bad weather to I mut mile once of the College boys brought his briggy - Heard from Altre laking his vacation and was coming up to Hagleburst or Brandon to bee one, hot I cause orray and be did not make the trip I day is a true and tried fined. I seldofer hear from Jacketon now and to not firefull to keep up with it - They Alo say chat Dr Holeonbrist to be married again Sir Robert - I had litter from Famile tray a day or to ago minting

This afif her a day of sole per her.

Pould white for suffer my hours with his all ment with his live of the hours of the his live of the hours will be the the the hours of the his affective the hours of the the hours of the h



Which never

andent to Cearl The harlow to see & emony performe made Tries lear Jans John ness ng. The was 11-300 M. M. my the

ceremony hunde was perved Vally rat Lew antimate frien to Hamseline Whis to reside ic and has charge & Woolks, Irtilch in Hamilton He was years - Hio eisters, &

Mr. Sweet gam her we Instil the har came - But its all

1300

denoch a or ne of rednesday

4,000

leave kny sesterintan ou to want we will take with our little ereles ill erro la died loose nem: he is 30 attached to The child, dread the to Ja - Soon, only Con of go fine have few you riends, Iddait to how I will emilal

hold duties are one read with the able to entertain company I would like tolg with turk Mollie Perhaps we will a

one for mounts, a suo Space you la a few bennies make one the prom noit on the fute ils and re

- 100

## The bulne of Curved Surfaces in Thigh?

Port. S.P. Laugley -Washington D.C.

Bristal - Jan -Jone. 13 1893

Dear Sir: -

a By

In reply to your favor of the the rust, in which you Kindly consent to examine The results of my thindy of notwrul and artificial flight; I beg leave to submit the fallowing considerations upon the subject.

Objection to the theory of the suclined Plane.

The chief objection to be made against this generally accepted The ory of flight is that it fails to satisfactorily account for the flight of the soaring birds. orom The account of his experiments given by how. mariou in the Centery mayazins for acshe 1891, it will be some the with a flow - rece hined 1 in 13 to The horizon and vision of the rate of book year and forme from age of the grant of the former of a velocity of 30 feet per second the augh of elevation requied would be the 13. The configuration our forms her equere food of ourface the overcomy classicon souls be obsert 1 in 57 me which are the wife would be

fifth of The lift. To find how far such a plane would over let 12= 3= 6.4 and V=30. Then S= 316 = 900 = 70 feet. The flowe would Therefore come to reci after a hongoutal glight of 70 feet. But siece the angle of elevation must be more and as The velocity dimension it may cafely to assume incia flight of soft the person has and blished Such a flow controller de cloudy by a time I have Couper This flight with that of the great courling tires. I have seen The que-bird, whose flight- searce ly exceeds 20 feet per see , sail from an estructed height of 60ft; in a direct line, with out a more went of either body o wings, and without loss of velocity, a distance of 1200 feet with a loss of but 30 ft in shortion. 11- Therefore descended at the rate of in 10. The oad skews number along the curfere of the work of him to have the work on the clines place would getting and it is your The inregulor flight of the beggers makes it difficult to any fund what it is any longth of Time without flapping it wings, but except when bescurd erey it - selvous flies long without some movement. How som it may be said That with a relocity of 30 feel forsecus il- economicly flies mony hunders feel without per-Thibly disending.

that it is not sufferted by facts. It is other that the list over the wing our faces, at a velocity of 30; should be in 5. Two. loss those assumes it to be in 10 for swifter flight; and yet after observing the flight of a quel the exclaimed, "But where is the angle of separate inclination?" More over the reflection of smilight from the rendering of the wing of the hook and being good and the shoots of the morphis upon it; prove con clusterly that the wing is not a from a l

Mr. Maxim in his experiments used aeroplones curred to of an inch in 26" and obtained asvortogeous cesults.

Of it-will be noted that at no foint was the end of to be a fact; which are recordion will verify, that in the soor ing birts the sear morgin of the bear wings, and this applies especially to the secondary guilled is approximately on in him with the front morgine, and that the intermediate hortions one more election than either.

One other fact must be accounted to : The front heavy morgin of the wing is brought to a fine line which exlends from the body to the furthest the of the formories, and the wing is so formed that every porticle of air which infriences refore this margine is Theorem reports. In.

Ship in which The front morgin should be comes on The rude side. Is this a defect in the formation of the but's wing, or is it are advoitage. Other advoitages ringleprevail over the question of support; but it is not easy to an why the minory quill feather might not have had their why the sooning hiror, the wild duck, a stress, so persistently fly with The bill on a line with The bental surface of The body - Thus forcing on un necessary amount of airs shoot. hor is the any divious wason why the Chard which forms The front morgin of the former se carry portion of use in chould have its origin helow that of the homes in the genend it- occurs that in so for as it was forsible the bis Toos been so constructed That not a prime to con chara he Friow Poromond.

Lastly the theory is (or seemingly was originally) founded alon a false notion of cerodopnomics. Mr. weatherman assumed that the air undermeth a moving inclind plane was pressed downword, the distribution as hing limited to a distource of 12 miches, and that the formal explained was qualist along the front margin for the reason that the particles were the and that the particles were the and the fortices. But if marking only is to be considered, it - may be asked if the distribution only in the considered, it - may be asked if the distribution only

30 why the pressure is not as good as in front? But of the Things than inertia ore to be considered. The form as quant to overcome the inertia of a cubic foot is in a fraction of a second is not qual, but that region to reduce it volume to as more observed therefore he qualit her ing obsert 16 ths. Pressure should therefore he qualit along the leas more of the ten compression is qualit. But the air is not in the present down; pressure he ing repidly houseafter in every direction. A disturbance occurrence a foot in our sincetion. A disturbance occurrence in companion in consideration of the source distance in every other our sincetion.

Judge S. we will consider the flower or have so so as in matter Sid man, ble refreched the believe being so and distributions. Any excess of pressure which may have and committee along the him of will be quickly trousanted of the surrounding of, and as the entire one about is mande flow along about by in the find which by an increase flow along about by in mecessitate by the following conditions: niceand from in necessitate by the following conditions: niceand from lowers ac, upon at, and below an account of defthy. Instead of being quarty and below an account of defthy. Instead of being quarty and below an account of defthy. Instead of being quarty and below are account of in order that it may flow at the flows more confirmed by the air in

the pressure should be greater at lic There by hours the press Since The air regains its normal velocity - It beyout to, two the pressure closed by must be about the rough, and still were doorse the round change as-There we Therefore he some find to when the presence is again wound, and from which it increases to a moximum at in-I similed course of reasing will alway that are the upper surface of the place The selving is realest and the pressure least dong so; and the moure plong to for Was There will be kind foids mouth at which the pressure is resurd. The pressure is less then the round bedience and the velocity que there points. before and often The plone. Then will be a it - from which the air will rise in a cume to a, so that were are from The flow how and so Should The plane he extended horizontally to 2 the would be an a gain: glong als of both lift - and drift and day as of life without and The every last in the which produced to his the place and mit the come

Therew. with zone on course surfaces, horizontal flightrivery be accomplished without any drift wholever.

O Let abb, fig 6. refresent ouch a ourface, a and i he
ory in the some horizonited places. Let let

The limits of ontical disturbance. Then as above it may I shown that believe as and bod The pressure is about The normal, and reaching a runner at he where The welocity - is least. while for the suffer surface the pressure beween so anoty is less then The normal, reaching a line come of the other the a landing to grande Then might - pas sibly be an increase of fresence along an and a decream along at . The result of which and to the more ais would four here in the own the fits ourface. Howen The air wile fors as aut to with the came velocityand fressure, and house the pursue ofer the anger - mine he agent for and all the point recovery offices to her the surface, so that while the of surface is sufoported these is no huding to move it from its ( person it ) that The to fuction and our remoderable to a least for

## amount of Persons.

Freshine is trousualles equally in all directions at the order of the is of for her second, but it is not the came at all distances. The effects of an explorion as fell a house of fet away without the short opened for they are by no ancours as institutions as near the ocene of the exposition and compression. It requires fown 6- act mater in motion and material heary yearlest around the source of dishubonce the former and compression.

fore assume that since the attentions in velocity one qualent summediately some and helper the surfaces the presence is qualent afon leave surfaces. The extent to which The Desteuleau as toil be offreciable depute upon to things The balonce of les apposing forces of compression and mertia. If the oven he omale The compression of the will be great and The our will be sulorged. The body of tentil bird is themefue supported whom a body of compressed ais. The amout of This pressure departs refore the deque rate at which the work of vouces and party you it - extent. If the air he thow moving at the rate of 50 ft fres seeout, and This aelocity - undermeate The wing be reduced to so fet, The energy expended is The account necessary to from a velocity of to fe per arread within in the line of constances

Figs 8 and g refresent a model constructed upon This fringciple. The curvature of the sail was less in my model
combes the that in Fig & but stimwing the drawings are
sufficiently as an a him with a and be, or the place of
the front and nor morphy, so that the side antime surface of the sail lay obose the place of the curvature

of wood, 3 in in Thickens, convey an The front and alper variface. The sail, which was kept in place by stoys or auns extending books to from The beaun in front, was stown tight - along the front and not - Tuorgin best left obeter elsewhere. The glight which I Though with the war and and although the sail lay obone the place of its morgines, it was haple full like the said of a ship, The flight being obright forward, deody, easy and sine, in othing coursel the with aughings I have some here able to Dries with the included offered of it he theest forward from the hourd . horzontally it contiines to more horzontally suited itsenergy is extousted apportely from fuction and Ten formation of newscersory currents, showing no tendency to more there in a parabale or doct suddenly docessor word as an inclined plows will do. By elevating the ness margues of the tronganted medica it can be made to descend and wire again in a comy that willies of 1 in 10 to 15 will an manasing relocity; but as obright as my for last or one feculionity of This flight - goes to from the corrections of my theory. Ofthe leaving the Loud it moves forward 15 or 20 fut as any other frogestile might so, ofter which it seems so to come to right itself, to slightly offer its course and in the

sail Effecting; if my know is correct it takes a when Time to establish the currents were wory to its suffort. On another respect it flight is like that if the Downing suits: it flies equally well going rapidly or stowly; or ratur I should say, as it velocity diminster its flight. runains unimpoud. This is encuently choracteristic of The buygord's flight. In vising This hind will ex-Levest almost its entire clock of everyy, it velocity will vory from a few feet persecond to fifty - wither a few I could, and yet at no line o it show a tendency to descend as its velocity durinshes. This might in ports be explored by the elastic notion of the features, in fich the ruchisation is more to vary; or it many to that as the pelocity dimensters The corrects chedy extellighed best the of support is

The effect of the Body upon Hight:

Theorem. a ship shoped body attacked to the sender sitpace

of a horizontal place functions the conditions of perfection flight:

For, the body will be encound in an envelope of morning fluid above freezenes balance in every druction exachting the superord dreams of the true place.

The the superord dreams of the true ore waited by the place, and many be continued by weight add to the body.

In the six the body flores are simplified to the body.

Figs. 6, 10, 11, 12, 13, 14, ellustiale tu principles au outoed. he figh. The success pressure along The would, if Fore a sor houzantal plone were possed through are a pressure four it above the round, at h below and beyond to above it again. Cettoyetus Tun would be an excus of pressure ofor the plane. When combined in flight with the concore surface of the the wings, The ais displaced by the body farmes into the concoveryformed by The secondaries and so fours a wedge of absoluty compersed air, some to coming and relung to the new of the body. It will be seen that the too privages tend to new tradig a with atter, and for This reason the concavity is greater next the land that near the exhemites of the wrings. However in large bodies but like The wild hikey The concavily extens to the ends of the wings. In the ording flight - of the buygord The zer morgins of the secondonies are elevotet doone the front morgin of the wring ( see Lig 19.). His must be become the oir from the body is forced wedge the beneder the wing however this occur only in dea scuring or decusing flight: The done fle flies swith folded wings It own near the body, The rear morgin of the wing suclosing a longer space those the front. The six from the body is forced indimedle the wings. The 2 years the flight is instally on Descent.

The wing as a Come.

Prof J.B. Colliques Theches a good had of infoloring to The securities conformation of the wing as on mufile. ment of forspulsion. However in ocaring much of This form is lost, bethe seas and first morgins he coming offerminally fromted the fighthos well defined areas exist; and deeply concerne; to reour perhaps the air from the body, the ather appropria moting a plane. This ensures steodyners of flight; for if the zear morgans of the secondaries become exerce-To frame the excess of pressure thereon of from the body, the tendring would be to glide some at an incuered and constoutly ruceasing angle. This the secondories by their greater structe universe to a less pressure frebut. The closticity of the princies would seem to require that this should always be slightly lower the are The auterios. Que the same is him of the restroidual quiles. Suche Turns to be in and . In full flight, which is a deoccurring flight; the ser morgin of the wing forms On wrighter line, being along the accombonies, alabated obove the front anorgin, and closes the framous formed below it. The energy lost in desplacings The air in front of the body is regained on the sures surface of the Pecondonies. From which it would are that - soors ing the secretories from our for fine friends and the John his server shaped sowing quiles become remains curve as chown in fig 19. This is refractly about furfore in soaring. It is not necessary to assume the excitation of an involved curving upword, since it is produced by direct flight:

Coopelsion.

The flight of the sources birds should commise the most shelis head that flight is well accomplished by means of a Bosen propelles, at least not such as that we will by The ropidity of the obste of the birds wing has left - a wide field for speculation as to what really Tus place. Some have held that during the downword stroke the wing is elevated at an angle of 45. Prof Pattergrew contends an the contrary that During the Down Thake The rear morgin is lowest. Irr. marie ovocales a amos oeser mu at a counte auge and a very qua relocity. It is concered that necessity may have forced the but to adopt for frafores of propulsion an instrument muy letter sucher to the proper its accomplish rund; and get with The wing which whose first object is to suffert The his ac-To Inopel tills of weight The buggons was a wing se Sing enabled to rise to great highli with a morrel-

sus ropidiles

It is important to how that This fower is exerted just as effectively I in socries as in flaffing, and it is there fore safe to study propulsion in the soaring bis and as. some that someting sundos process takes place in floffing. It is cortain that in soaning the wing is never inclined at an angle of 45° to the horizon enter way. nor is the augle noticidably different from that of or-Thong shought forward flights On all some suchouses the but presents a broad pur concone surface to The air from through which is is porreys and The shote is made So sloroly that no movement used exacte the eye. Referring again to Fig 6. Let a ho represent The wing of a bird in rapid flight. The mercine up overt fressme is at to at to have is on reproved exens and at a perhoto a slight - down word exens. It & represent the could of quite of the lind Let The entire wing now acordere Stout The con-In of gravity. In being deposed and a elevated. The established currents will be distributed with the result that the report foresome you be will be greatly mesered, It downword pussere afon a to a less degree, and upon the entire surface able very much so. The

is to form currents amiles to them in Fig 5. withof excus of pressure afor the forward morgin. If a plane were their out they shifted, much The cis would pass around a to the reposer side often plane. But in tig 6. The concovery prevels-This and the suffer excess of process fruits relef by a qually mound velocity at by and a formers increases mount of the of surface dielle along the line of the new plane of al. To Thus The the wings about the centre of gravily s regives Jours and This is furnished by the remedes of the bird. If at any time the revolution be Topet The currents withtet line to bear The for ouwond along the new line. plone. When a come its reliaily is more and, and standing comes to udicale such to be the care. This view agues with the observations of Prof. J.B. Pettiques who first fointes and that the bind in flying struck downword and free; the time the words that during the Down shots the fortinos morgan revolved about the author His downwood motion fait it combifort in the san rocking motion of To sooney histo, the effect of which would be to should de coule our increse the pressure two I a vition to direction

America. That there is come change within in Sooning could not long escape the altertion of a consul observer of The quest some. It is by coving that there bids accomplish those wonderful feats which we are los pour lo regord as organiza as effort. lue ace a birt vice on easy curves into the air and eventally become lost to sight in the blue distance; not once does it flap its wings and we look reform The fast as something mysterious and one disfored to attribute occult voties to the bours of the bing a bis oright fly without appreciable loss of many but it cornect via wired a loss or a frakting pendition a velocity of 30 feet pero second con only comy sof virtically upword a deslocate . That 15 feet. The sorring him one not been aufly delflier will four the flopping two and the only question to be delermed in how this way to find. I have alteripted to show that if a bird time from a longest outs a curve its relocaly will be increased by the musculor energy accessory effect the change. However it is fossible that the across might be In attested to curviline of flight in such an way that such flight and with pools to

lined. Thus in Fig 6. the marker of & would have al lending to sender ceremes flight indefinite. But with This would be forsible and with a give velvaily. and reform corder of curron of a coron of a gion convolue, since the excess of freme sifere her would prevent any incuran of the correline. It is only when the course is att or a shorp come fallowed by a continues expendetin of many that the velocity is me on eleveling que The most astonishing flightsone The sleep sprival ascent in which the bird Dans to screw its way upword along a helix or colseun. The curvalue in these sustances is very oharfo. I ouce owithered a howole sine with itsurge was alread ofeel and it was on the fait of making our of the seisent so common in soming flight; when it suddenly lived refore as shoop ore of a sproul which said it going money for

Tig 20 represents the projection of a typical flightof the buggos. It-will be seen that the birt we

not rise constantly, but that it is alternately as cond.

ing and descending. Thus considing that fortion of the comme morked above, containing the Lig 221, the

The one of a egoloid, having a constantly increasing of great them its relocation; so that the ascent is quester them its relocation at a would worrant. Horing exhausted its surry the his assumes a horizontal facilion for an instant, then hims oboly refore one wing, curves quickly bookword, dorts down word like a revolving ing mediant wheel and and and wife sight assumes a horizontal facilion at a with a belief as quat as that it had at a man love shortion. This process is repeated until an sufficient shortion o is reached when the him choosing a presting and for an instant olighty tipping it wings descends without fur-

The habits of the vellent are highly interesting. If alones they rise from the costs by sooning in company to a company to a company height: Suddenly the sooning cases, sach bird chosing a him of flight and no two moving and for getter. If at any time a soldery unline fercusers a summine sooning in the distance it makes directly for the ofat and joins the others. Just they soon reproved for a time, then seporate, and going to join some other growt; and so they spend the day. In the higher regions of the is they very sorely flap their wrigo.

In making short cower the mertia is often so great as to throw the wings

and the state of the

Hopping Bird.

Il- Barnes protoles her the book of the bill comes are important fort in the frequet of. The flaffing wind, during the downward stoke The air being come to believe the body and the comigs. If the two wrige of the a crow he taken, and the process be etroped from the one and the acco outonies from the Steen it will be found by sofe ment that the second our one much were effection in flight purpolisions thou the president and This rest contestoreding The greater quel of the prime. The stiffuen of the primaries and the cours shoop of the write in. "cale that the outer fortier of the wring on was for price bell, for reffort, the concovely of the Decondonies receiving the air from theist aside my to body and evering so assisting frequences.

Prof. Pettigness's otolerment that the bid other some.

word and forward is amply bowe out by facts; though

then is a good scal of vonation as to the morning of

othery the cis. a mislate in observation is liable to

he made in excuberge the medicalines of the body to

the wring. On come of the somewhat his the body is

horizontal as well as the wing servers but in medical

Slapping birds the body is mislant the langui.

If a plane surface he thust into the in he late

against a prossing come, The air will be in mo.

The one the entire of an embrelo be just a day and a dealy forward the air forms entirons to the owner of and a form a come of modistates air. In querral it may be obtat that if a current of air much one of the prosent of air much one of the quote the quote of the our forms and form of the our forms are to the our forms of the our forms are to the our forms of the our forms are to the our forms of the our forms one of the our forms.

In Jig 23 let ale be a plow rapidly descending riels the most tolers air herealte. The persone exerted will extend downword and ant word in every direction, but in. Jod of moring importing a considerable deque of motion to a longe body of air, relief comes by a very high deque of motions along the surface. In Them words in clast of a wide spead companies currents one salof along the surface loword the morgins and the nor. Thus if the a place he mode to otile the a body is in which dust is floating, the dust is but little de tuber contil within a very few inder A The flower. Of a feather be placed upon the edge of a tobe and a book her dropped vertically to the floor so as to four mos il, the fiches or will be necessaried the book a success officiality Ben it will be violently betown across of a Loor bes history closed it will francis

throughout the seiter lengt of a municipy But if the same For he quickly shoved while stouting afor The currentof consist obout the door. Thiste de flasting before a flying beomotive is scorely moved within a few rinches of the its front, when it suddentity it is aside. In faming we present the adjust the for post the only ce to the The apparently wells away beneath on advancing ourface, much as calis builte would as builte as the infe of now this surface current is districted in one direction it will become more formerful in other directions, and will exert a soundful pressure you the Shiluaion. Thus in figure 25. let ale represent a come face, shortly concerne downs a. the aurface exercit being obstudis in first forms off tackwood, forming the ourface forward by reaction of the wing of a bonggord he diver oquouly against the is, the new should current is set up along the war avergine, but of a motion acon be detected offorg her front according. If The energy were subicky consumed in the formations to The surface current, The all The force exected bestierly would be recovered in a hongantality. Cherial locomotion Therefore offers an advantage orm - very the form with which we one acquaited, The of-

fective housenisses of forsure of a eight auge. It to

Surface in Jig. 26 were puesed down upon a block of ice of corresponding figure, it would have a slight-buturey to more forward. But the forward hund was give the sain of the includion was give the minimum of the employed of the includion was give the living would be continuely converted into others whose only as cope should be to a way quel forward pursue would be produced.

The bird utilizes the very course of many which is lost by the secent fepaller - the slip of the secent. This slip is due to two courses, the loss from confraction of services in the bird losses his everyy required for compressions, but utilized to securing of the white is the principal portion.

Colon we cousing the refer second it will be can that the former may be applied as effectively with a high as with a low velocity. For, form is applied by the generation of curfuse current, and which one product by any alleration of existing currents, as by the slow survenued of the sooning birds, and which one esfect ally effective with a high velocity:

The overing ties demonstrate conclusively that rapid morement of the propelling surface is not usessing to a course - ful flight. But with a place can fortalle rapid movement of the

The question to be calved in The Davidhunt of airial morrigation is not how a which may be constructed copable of austoring his thousand former, of altoning a velocity of 80 or 100 miles for hour, and of making a flight of a thousand will miles be fore coming to the corts; but one we are to construct a vessel of light weight and capable with a loss velocity of suffering his or the history formers and making any flight

The chief difficulty which has about in the way of even attended - at aerial havigation has her the quart wight of the apporatus for quarting forme. How. How. I is not necessary. Estature ears one away, and the world trans to be as moras they this is not be surrounded to the might not be discussioned to might extend for a bislource of the or harden might extend for a bislource of the or harden might extend for a bislource of the or harden this loss wines could be corried to the discount this loss wines could be corried affect the proposition of for the said abile. A cure of the aut on the form the loss wines could be corried affect the proposition would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and one of the wine before would for the said and th

along the other wire. Such a line might be made a scendingly maful in correct mail and higher express, and it would be the first olip lineword something better.

Le corrier to the obit from a point in an offen filt, by meous of a wine comeder with some suight on the form might be corried to a coption balloon and there is the or the coveral hinted ful be low. In this core the world bowly be a fixed. Lilif of songer, and the offertunity for some

of his ship, he could begin flight - proper by fulling withculy from a bolloon, for the ook of water being boken up more the sea, to the after a fall of twenty feet he would have a velocity out ficent to outloin the would have a velocity out fix and hey using the rudger he anywe quickly assume a horzanted course, often which he would he would be anywell assumed a horzanted course, often which he would show he would be the seath.

If once the fact of descending like a corrier lind from a balloon be accomplished, the

Known.

It would not be a difficult matter to constitute our face, and if we allow one found for out of surface the sails may be anove of eith and may be not wrige of the motor, need not wrige one fifty founds. If it is to be sured printly as a portainte, to experimental pooring it might only one point a more wrighing 100 lbs and with but a pursue of the to tuty floor outpass.

as to your wing the ware my experients go to show that nothing is some more anding complished. The altration of a half inch in The elevations or defrusions of the nexten comes raises or defresse The flight very unticoding. In a still almospher - and it is is a stall almosphere that experients should be find - The ship will actautomatically and said bear outally if permulted to to to as to cost, such expensed as a should his to make would require no costly apporation. The inportont ilen is suitable material; having give which any yord corpuli combacumund - 1: To lest - time correchurs of my heavy would cost my litter, and ale would only be accessing to constitute and information coluber of rectioning at 00.30 ls.

Stimult you decide that my theory is suf-Security plousible to justify further experient- 2 should be glot to have your essistance and advice in The matter. I shall be pleased to have from your of your converse at Chucky City: Issue. Thousing you for your qual Kinduns examing The popular Your Very Respectfully.

Chucky Cily: James. 19 to Jan. 1893 my son Jimesat a monefell refin for you to put the whole bushes of a proupt and agains correspond If I world as long as you to write an correspondence would be oneything hut regular. Just when I had petited down to the fluring conclusion that here ofter the second and the changes from day to night would not be seen regular thou our letter, there comes an awful vilence and a yeart got. and som if I will as soon as become from you, as I am doing now, I come not mend weather senice therless you keep up you send of the long tree coulbe unich of a logralling. His is posterely need landafferonce es a prompt constaut reless, you come to line. los ou in the midst of a breatful winder, and as we also one in The primes of life have mean Kurous before. Since The wor true less been no such weather as This, of som in the leston of the

Country. les you may renagin when the theoremen. the gets - Source to 30° below 3000, as it has been her, it is no summer day. Fortundely The hos lun no ains or it would have been unbromble. Even as it is There has been quat outfring among the poorer people. In Bis tol more true are family work without fire or food and tood to huddle together in bed to keep worm. The people and the police took the matter in lead and established south houses and Emp. flied them with coal chiving must hore puisled I a week ago a family surdulook to cease the reconstains mongh The anow news lives. Before vacting the stime side The wife and little child were forgue to sette and Then They were found the more copy was almost Scale There has been a good heal of bleighing, for her ours is so wicker duly, but a hore not leun out. Postly are account of being too als and fartly an account of horing western chigh war house. But the fiels ove out almost Doily. I have her Threatenes with - an attacks of the bluss not an account of The ornare least in a fulle of il: For There is no weather that water me as he as that which is worm and bright - to her the wester

is has I feel that I con not be at worker anyway, but when it is bright a devange brown are nurrosy conscience. It was a test to get and not your dear this good letter on say before gestersay. Jan weath this time like The corre sue of all. I got us shim fellers that I sugary so much as yours. Tokich is perhaps no quest compliment, for I coldon hers prom anyone des I did though receive a de. lightful letter recently from Rose Season. She is a quod ded like miss bourg andrews, whom & com only Think of as a girl wearing a trow too in a light wind I shall always think awast kindly of her for hoving allowed me to get about of J.V. Benn on the day we the died at old beather hullers. Unless obe less chouged very much since them, she is a semakally sweet wowen. Her orice vary an my sons for a week often and wint. You will pleastell me other your write of our what whe gail Stant our all sur what was refort one being corculated about bours. You can set it down that if They are soil reforts Trey one fulse reports. Isnit ila letter francy that Tay about he co violeious. Suy is not bours, but her is wistober of Things a mon sund be reserved by one custom cloud not and us other. coins is one of the last and heart of men. The light

told me of money tentiletions that have least him. and of how he escaled them. When you have would That basis sometimes held an rose and fringe Light you have perhaps and we very wount you com say of him It is true he did not hid him Drew Horoken gright, but there is constitue on So to Theat closey By The way I know comething a letter sot about Juy; a lest I ohall sent Think of Telling you what it was mutel you tele me more Sout buy andreas. I have a letter criffled sweatheast wow - who aresent com dong from one so easily as come gut I then I mean one of these roys to get me a smatheast of my very own our that is true and looning and wellingsto and olovewood. They notion is that a more who lives like & So, by himself and to himself, is a food excure for will to four out to love to from you is frost that I am not lost begond in tention. Sometimes & am templed to console rugalf with the old megroes Hilosofly, Blend on by dat don's specks within, for day and a goin to get within "how will we a good long letter control wasting and fill it - up with Thought - I bout your own sers and smet alf - July Ja & Holar.

Brishol Janua Jani 19 1/893 To Whom it more Conem The is to cortify theh & Low frage and Kninker of Mr & C. Notfaken & Kill and efficiency as a Jury and Circl Sygnes The Carling That he is Thomas Com percent to perform any of the duties of his profession-I mand him ale as a skilled drafemore of rapide in ils Exaceles M&Blankley celly of and Bo estol Tru

1.85-

Bristol- Langue 1893

my den Jund.

you dear letter was received this money, and attrough I will not have time to finish my letter tonight I want to begin it, even if I so not get for with it: you ask if I how thought - of Carrie Suce since I had written lost, Indeed I had, more Than ance - two or the times - which is proof that a had rest thought of you incuterrifledy. But to tell you the hable some of my thoughts about you have been question ingo. Somehow the thought has come to me often, or outer the question, may I not be decived? may I sent be toking in somet Things she says in jest or holf in correct? Tokur she suedo me hu lone does it wally mean anything more them that she wrote what happened to come into her must at The reconcent of closing her letter? There one ques tions which you are, dear, peoplexed me and left me in doubt, and really I would not home been surprised if you led not written again for a long time. I have tried not to sweet for 2 sais it will be a waste of affection perhaps, and I have no re oron to believe that it rounds not, but it is a that hard realthe sometimes to the from loving you. so vathe I have bod to watch rugally for fear I ruight love you so well I could not some for a long while get own it. that I did ned want to do, forg', have hod sorrow and suffixey enough abrody suftrout

adding to the own needlessely. And so I have made up my good riming not to core for your - cumless- somebody should core for me. Whether she does not not I don't know purholes ale does not know huself - But some how when a got your letter this morning it was full of music for me. It gome me more confidence in your and in your filelity than I freshops had had. You see all sort of Souths-had vision - I don't know when they didn't were to do so so - but all day I have lost right of them, and the game little for made the day bright.

· Well here it is tomorrer, and not only tomorrer and tomos' right." You are I can not offord to worke all dan your dear letter has been coming to my mind and every thought of it has called up a out of vafterous feeling that a count easily describe to you. I have spent the day intoreting some editorials for the Bristol Couries -I with almost rock now and recently made quile a lit and brought about an unusual sale of the paper by a 3 column article are The Timber Resources of Sullivan! I would send your Some of my editorials but I am saving them for to read when I am att. - Hear I burnes around awhile then rooked an an

a map of the Dixie Sanney for wattile them the burned awhile - 5 the Burned awhile - 6 the worked are mof. 7th ate dinne, 8 Burned - 9 worked an moti- went ant for a single. " Brunning. 12the Burmed. " worked on reaft Telo too door to been 14 the quit work. muse gift blu stones one full & togo, pictures, may agines, books - long thing that solights the ege or that can chadam to mind; show engines, womentally caloued loys of stronge nucleanism - gomes, fuzzelas, furlown full of term - and get they altogether or not some how entirely satisfy me. no, Cavice Sue, my Soul is too great to be satisfied with pop com and toy pistolo. I hore a reind above oracys and Japan fersimons, though o Do not object these in moderation), led my mind soons above them like The lagle toward the sum - That gives you am idea If what I am dear Carrie Sue. I could not describe rugself better if I worked an the matter a whole day. It is the necessity for loboring to obtain my doily bud that keeps we bound to the enter- otherwise I would be an ordert with lotty assistions. Do you know There bos long han a deon in my mind, in which you figure lorge. ly- lead what will you give me, lone, to tele you went this artists I ream of mine is? Who knows but it may some day from hue?

I was thinking of you today while I was burning, and It a recalled the buck your letters had oftenest set me to greaning there some ortests treams. of treaming from iteal like and existence. you must not fail to speak a kind for me to Mos. Wodowsth - She is a woman of always litter and admind. She has a coorderfully Keen appreciation of the humor and con on it everywhen -She is the best hosto I em knew to make from of perple. Son all the good things you think of for me-Dwile envorse de you song-It is alright for you to sugary your self with " a fellow that looks like me", but I shouldn't would you to get me mexed up with him too meefcerably. I should like to stown furt in your fixed this. and in your offictions. For I have a belief, dues, that if your offictions so not go out very orwardy they would be very strong if you once lone a mon. and that is whey I therink that if an meon could level win them he would have a vich hearne all his life. Tell me, sweet, how should a mon pet about wing them. What should he Do, what should be say! Tell me the secret and I'le try it. You say wen as drentful, but you do red know about me. Joulet that the some some shine; sould that the stone so more
Third that to be a lie - but never sould very foundalisher
Townsight when shale & hear from your again. Some of thatlundentime I will write more foundly
Towns foundly. He

Hay behierst, Miss Ty dear friend; d: will make the startling announceiners the Ligining that & taking the gris, and manuer. Innovement bur will he had und to hoaring in this small is a place for you Eay out in the Geret thing the hax had en here liead kinde & hon Yours her " Int chere

you will be plightly unotaken and gon had better uft vay or lover. dunce ande a chi-fo- ft-is how marly 10 P. Lu. and & Jane putting by la comfortable fire in the Grato which by the way is a great himmation, with the enterition of answing your good letter ried chall I ray models ago! ho, that could will be to as lit has only long time to me, He han mond, are homekuping had Conference preacher and levery thing has been lin a hurly kerrly found this is the word fine I have had a had a Jyn- som more alian zur did he for it has been lovery day for in on chire times how that is a channe for me to be backing my young Da feetime one who caree or little Afor rue and chin your

Day your doubt me agid de hat hant to Care for ince etc., Will I do not care to force any traly to do dry thing against their will proported by "well They ther mor Invall until final body elec , Cracico to de aleka you must druit The try flipparel and whomber to brute ante chinge & de hot Tuair - A chall not Conneced on this last ar you may find out gran rel Abrill it. I have prietting eur about you in marly

every letter you wile. hlife not theor you borne puch a writer Plan sand line forme I du papere occasion. Jally - & brould like very which to our what Mat great mind of your produces for the public If I chot-glit the investmint would fory me I might surkecker fore. the paper. I will first with to the Edilor of ask him . It is only, a fer days before Christman and in well han a wift of holidays. We all wit down hom tright just after Supper to Edole at the

pritty things, and the tom is full Iny title attraction for rue he and to old, great in? to leave any winds for those thrings now but bit is and to be remerfulired prostonice by some little thing, fuch ax a by orneithing Deled sort I received a vry handenne "hinker fact" from me of the koys here last night. the cause up to are rue of said tu Town I would appreciate this precious Tometody else & might han told him the could have given me something he passessed which wrild hon sufer appreciated afon every cting class som junifaring Jacks. Of are to have forme lutertainents during the Estidays & believe. The Caldfill Gading Chief will to royally enterfained Christinas and there will be other ching & all

during the bull-He will have a dimen Christman day and mosti swiraff young gutterien & lablice Will zon enne. brould be delighted t Der zon - It- is getting or late & Lan (very rerower of well efor but more this time. Um afraid & an Jan of the hiel here Lenosty in Jul very kadly); tomplet this refay & flee last letter & shell with you this zear unlike I you sifely from they . But any visy tell make for a And harly him year and it your suit

P. S. M. 3. There is a good place or my mantel. tery" shelf if the Harlor O for a proture Tu a ruce bent pilour frame F if you will task groups prethist to and use me I zour dear old sell Wall honor it by placing it there I Will you?